



TRAINING, SAFETY &
ENVIRONMENTAL
8142 Hwy 412B, PO Box 609
Chouteau, OK 74337-0609
918-256-5545

August 24, 2021

Ms. Amber Edwards
Environmental Programs Manager
Land Protection Division
Oklahoma Department of Environmental Quality
707 North Robinson
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

**RE: Financial Strength Information and
Closure Post Closure Cost Adjustment
Grand River Dam Authority (GRDA)
Grand River Energy Center (GREC) Landfill
Chouteau, Mayes County, Oklahoma
Solid Waste Permit No. 3549012**

Dear Ms. Edwards:

GRDA is submitting Financial Strength Information to support utilization of the Corporate Financial Test as the mechanism for financial assurance of the above referenced landfill.

This information is being submitted in accordance with the financial assurance requirements as found in OAC 252:517-17-81 of the Oklahoma Disposal of Coal Combustion Residuals From Electric Utilities regulations.

Information being provided includes:

- A demonstration of financial assurance for closure and post-closure costs, signed and notarized by the GRDA Chief Financial Officer/Corporate Treasurer of GRDA
- Independent accountant's report on applying agreed upon procedures
- The independent auditor's report embedded in the financial statements of GRDA
- The 2021 worksheet for calculating closure and post-closure cost estimates

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reliable ELECTRICITY,
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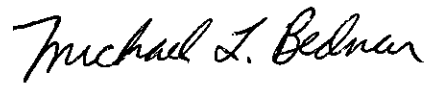
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are our greatest asset in
meeting our mission to be an
Oklahoma Agency
of Excellence.



As required, a copy of this information is being placed into the operating record of the facility.

If you have any questions on this matter, or if you require any additional information, please do not hesitate to contact me,

Sincerely,

A handwritten signature in black ink that reads "Michael L. Bednar". The signature is written in a cursive style with a large, prominent initial "M".

Michael L. Bednar
Manager of Environmental Compliance



ADMINISTRATION
PO Box 669
Chouteau, OK 74337
918-258-5545

April 08, 2021

Ms. Carol Bartlett
Environmental Program Specialist
Land Protection Division
Department of Environmental Quality
P. O. Box 1677
Oklahoma City, Oklahoma 73101-1677

Dear Ms. Bartlett:

I am the Chief Financial Officer of the Grand River Dam Authority, an agency of the state of Oklahoma, with its principal place of business located in Chouteau, Oklahoma. This letter is in support of this agency's use of the financial test to demonstrate financial assurance for closure and/or post-closure costs as specified in 27 A O.S. Sections 2-10-701(C)(6) and OAC 252:517-17.

This agency is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated in accordance with the Oklahoma Administrative Code and the Oklahoma Solid Waste Management Act. We have updated our estimates, and the current closure and/or post-closure cost estimates covered by the test are shown for each facility:

GRDA Units No. 1 and No. 2 Fly Ash Disposal Chouteau, Oklahoma	Closure	\$1,564,092.27
	Post-Closure	\$878,613.64

The effective date of the responses is for the fiscal year of this agency which ends on December 31, 2020. The figures for the following items marked with an asterisk are derived from this agency's independently audited, year-end financial statements for the latest completed fiscal year, ended 2020:

1. Sum of current closure and post-closure cost estimates: \$1,564,092.27 Closure and \$878,613.64 Post-Closure for a sum of \$2,442,705.91.
2. Current bond ratings of most recent issuance of this firm and name of rating service: A1 Moody's Investors Service, Inc., AA- Standard & Poor's Rating Services, A+ Fitch Ratings, Ltd.
3. Date of issuance of bond: August 30, 2017
4. Date of maturity of bond: 2021-2040
- *5. Tangible net worth: \$710,010,155

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Ms. Carol Bartlett
April 08, 2021
Page 2

- *6. Total assets in United States: \$1,838,790,194
- 7. Is line 5 at least \$10 million? Yes
- 8. Is line 5 at least 6 times line 1? Yes
- 9. Are at least 90% of firm's assets located in the United States? Yes
- 10. Is line 6 at least 6 times line 1? Yes

I hereby certify that the representations made in this letter are, to the best of my knowledge, true and accurate.


Date: 04/14/2021


Lorie Gudde
Chief Financial Officer/Corporate Treasurer

ACKNOWLEDGMENT

STATE OF OKLAHOMA)
)
COUNTY OF CRAIG)

Before me, a Notary Public, in and for said county and state, on this 14th day of April, personally appeared Lorie Gudde, Chief Financial Officer/Corporate Treasurer, to me known to be the identical person who executed the within and foregoing instrument.


Notary Public

My commission expires: 11/29/22





Independent Accountants' Report on Applying Agreed-Upon Procedures

To the Board of Directors of
Grand River Dam Authority

We have performed the procedures enumerated below, which were agreed to by Grand River Dam Authority (the Authority) and the Oklahoma Department of Environmental Quality (DEQ), solely to assist the Authority and the DEQ in evaluating the Authority's compliance with the financial test option as of December 31, 2020, included in the accompanying letter dated April 8, 2021, from Lorie Gudde, Chief Financial Officer and Corporate Treasurer of the Authority to Carol Bartlett, Environmental Program Specialist of the DEQ. Management of the Authority is responsible for the Authority's compliance with the aforementioned financial test. The sufficiency of these procedures is solely the responsibility of the parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures enumerated below either for the purpose for which this report has been requested or for any other purpose.

The procedures performed and the related findings are as follows:

- 1) We compared the tangible net worth amount included in item 5 of the letter referred to above with the corresponding ending net position balance in the basic financial statements of the Authority as of and for the year ended December 31, 2020 and noted that such amounts were in agreement.
- 2) We compared the total assets in United States amount included in item 6 of the letter referred to above with the corresponding total assets balance in the basic financial statements of the Authority as of and for the year ended December 31, 2020 and noted that such amounts were in agreement.
- 3) We multiplied the sum of closure and post-closure cost estimates in item 1 of the letter by 6 and noted that the tangible net worth amount in item 5 of the letter is greater than the product of this multiplication.
- 4) We multiplied the sum of closure and post-closure cost estimates in item 1 of the letter by 6 and noted that the amount of total assets in the United States of America included in item 6 of the letter is greater than the product of this multiplication.

This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA). We were not engaged to, and did not, conduct an audit or review, the objective of which would be the expression of an opinion or conclusion, respectively on compliance regarding the accompanying letter dated April 8, 2021 and the information contained therein. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of Authority and the DEQ for use in evaluating the Authority's compliance with the financial test option as described above, and is not intended to be, and should not be, used by anyone other than the specified parties or for the specified purpose.

Baker Tilly US, LLP

Madison, Wisconsin
April 27, 2021

Grand River Dam Authority

(A Component Unit of the State of Oklahoma)

Basic Financial Statements as of and for the
Years Ended December 31, 2020 and 2019
Required Supplementary Information (Unaudited)
and Independent Auditors' Report

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

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MANAGEMENT DISCUSSION AND ANALYSIS PDF TO BE ADDED AT PRINT (pages 3–16)

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GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

STATEMENTS OF NET POSITION
AS OF DECEMBER 31, 2020 and 2019

ASSETS:	2020	2019
Current assets:		
Cash and cash equivalents:		
General operating accounts	\$ 34,103,110	\$ 28,532,389
Restricted accounts	895,853	5,036,824
Investments:		
General operating accounts	59,233,656	92,274,589
Restricted accounts	27,913,493	25,085,194
Accounts receivable—net	36,787,919	33,530,818
Accrued interest receivable	1,837,011	1,834,235
Fuel stock	9,341,945	18,701,071
Materials and supplies	44,966,363	43,233,378
Under recovered fuel costs	-	2,080,723
Prepaid assets	5,031,890	4,250,800
Total current assets	<u>220,111,240</u>	<u>254,560,021</u>
Noncurrent assets:		
Investments:		
General operating accounts	209,347,964	163,563,997
Restricted accounts	169,152,134	152,727,941
Prepaid assets	-	919,461
Net utility plant:		
Nondepreciable—at original cost	74,649,307	69,391,957
Depreciable—at original cost, less depreciation	1,153,556,637	1,183,307,375
Other noncurrent assets	11,972,912	3,000,068
Total noncurrent assets	<u>1,618,678,954</u>	<u>1,572,910,799</u>
Total assets	<u>1,838,790,194</u>	<u>1,827,470,820</u>
DEFERRED OUTFLOWS OF RESOURCES:		
Related to pension plans	13,484,694	4,286,903
Related to post employment benefits	3,408,830	1,051,412
Related to loss on advanced refunding	27,810,693	31,079,603
Related to derivative hedges	333,110	2,595,165
Total deferred outflows of resources	<u>45,037,327</u>	<u>39,013,083</u>

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

STATEMENTS OF NET POSITION
AS OF DECEMBER 31, 2020 and 2019

LIABILITIES:	2020	2019
Current liabilities:		
Accounts payable and accrued liabilities	35,130,367	32,255,337
Accrued interest payable	3,640,229	3,784,488
Bonds payable—current portion	39,240,000	37,505,000
Unearned revenue related to insurance proceeds	-	2,166,076
Over recovered fuel costs	926,974	-
Total current liabilities	<u>78,937,570</u>	<u>75,710,901</u>
Noncurrent liabilities:		
Bonds payable—net	951,431,405	1,001,295,522
Liabilities related to pension plans	23,192,358	5,463,835
Liabilities related to post employment benefits	19,461,886	16,980,723
Other noncurrent liabilities	10,921,596	10,686,436
Total noncurrent liabilities	<u>1,005,007,245</u>	<u>1,034,426,516</u>
Total liabilities	<u>1,083,944,815</u>	<u>1,110,137,417</u>
DEFERRED INFLOWS OF RESOURCES:		
Related to pension plans	603,759	1,905,145
Related to post employment benefits	633,829	829,895
Related to costs recovered or to be recovered	88,634,963	77,173,332
Total deferred inflows of resources	<u>89,872,551</u>	<u>79,908,372</u>
NET POSITION:		
Net investment in capital assets	305,481,403	281,454,483
Restricted for:		
Board Desingated	40,381,000	39,998,000
Debt service	22,889,999	21,877,917
Other special purposes	2,208,452	2,186,412
Unrestricted	339,049,301	330,921,302
TOTAL NET POSITION	<u>\$ 710,010,155</u>	<u>\$ 676,438,114</u>

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE YEARS ENDED DECEMBER 31, 2020 and 2019

	2020	2019
OPERATING REVENUES:		
Sales of power	\$ 380,115,355	\$ 399,342,391
Other operating revenues	24,695,083	26,566,101
Regulatory asset revenues	24,057,317	2,949,837
Transfer (provision) for rate stabilization	<u>(31,703,098)</u>	<u>-</u>
Total operating revenues	<u>397,164,657</u>	<u>428,858,329</u>
OPERATING EXPENSES:		
Fuel	(82,451,994)	(103,982,895)
Depreciation	(72,422,157)	(75,266,780)
Operations	(68,833,979)	(65,806,547)
Purchased power—net	(68,162,828)	(64,864,171)
Administrative and general	(31,624,140)	(23,708,144)
Maintenance	<u>(24,722,494)</u>	<u>(24,447,446)</u>
Total operating expenses	<u>(348,217,592)</u>	<u>(358,075,983)</u>
OPERATING INCOME	<u>48,947,065</u>	<u>70,782,346</u>
NONOPERATING REVENUES (EXPENSES):		
Investment income—net	17,846,422	19,416,075
Award revenue—operating	86,255	(259,865)
Income (loss)—non-operating	3,182	(40,734)
Loss—non-utility operations	(4,445,325)	(4,163,639)
Interest expense	(47,672,958)	(49,296,921)
Costs recovered or to be recovered	(3,854,699)	(33,196,760)
Amortization of debt discount and financing costs	(38,706)	(92,894)
Amortization of bond premium	<u>10,662,823</u>	<u>11,028,883</u>
Total nonoperating expenses	<u>(27,413,006)</u>	<u>(56,605,855)</u>
CAPITAL CONTRIBUTIONS:		
Award revenue—capital	<u>12,037,982</u>	<u>39,771,093</u>
Total capital contributions	<u>12,037,982</u>	<u>39,771,093</u>
NET INCREASE IN NET POSITION	33,572,041	53,947,584
NET POSITION—Beginning of year	<u>676,438,114</u>	<u>622,490,530</u>
NET POSITION—End of year	<u>\$ 710,010,155</u>	<u>\$ 676,438,114</u>

See notes to financial statements.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2020 and 2019

	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:		
Received from customers	\$ 393,917,885	\$ 434,350,302
Received from award revenues—operating	192,359	664,652
Payments to employees for services	(47,972,239)	(46,117,406)
Payments to suppliers for goods and services	<u>(201,599,362)</u>	<u>(206,858,275)</u>
Net cash provided by operating activities	<u>144,538,643</u>	<u>182,039,273</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Additions to utility plant	(50,010,697)	(112,543,055)
Payments for retirements of utility plant	(652,710)	(227,493)
Received from sales of retirements of utility plant	2,653,891	243,953
Received from award revenues—capital	6,654,457	2,023,810
Insurance proceeds received	-	5,700,000
Insurance proceeds spent	(2,166,076)	(3,533,924)
Repayment of principal	(37,505,000)	(26,205,000)
Interest paid	<u>(44,548,307)</u>	<u>(45,940,783)</u>
Net cash used in capital and related financing activities	<u>(125,574,442)</u>	<u>(180,482,492)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Interest received	9,473,317	10,943,709
Purchases of securities	(770,008,486)	(698,707,507)
Proceeds from sales and maturities of securities	<u>743,000,718</u>	<u>694,822,295</u>
Net cash provided by investing activities	<u>(17,534,451)</u>	<u>7,058,497</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	1,429,750	8,615,278
CASH AND CASH EQUIVALENTS—Beginning of year	<u>33,569,213</u>	<u>24,953,935</u>
CASH AND CASH EQUIVALENTS—End of year	<u>\$ 34,998,963</u>	<u>\$ 33,569,213</u>

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2020 and 2019

	2020	2019
NONCASH ITEMS FROM CAPITAL AND RELATED ACTIVITIES:		
Noncash award revenues—capital	\$ <u>5,674,490</u>	\$ <u>8,854,736</u>
NONCASH ITEMS FROM INVESTING ACTIVITIES:		
Change in unrealized gain (loss) on investments	\$ <u>(1,645,653)</u>	\$ <u>9,909,326</u>
Amortization of premiums and discounts	\$ <u>(399,252)</u>	\$ <u>2,355,019</u>
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating income	\$ 48,947,065	\$ 70,782,346
Noncash items included in net operating income:		
Income from nonutility operations	(2,963,597)	(563,969)
Depreciation	72,422,157	75,266,780
Changes in assets and liabilities:		
Receivables:		
Customers	(2,426,761)	4,887,397
Other	(3,836,589)	3,335,277
Fuel stock	9,359,125	476,060
Materials and supplies	(1,732,985)	12,236,506
Other	(62,293)	1,561,429
Deferred outflows related to pension plans	(9,197,791)	3,039,703
Deferred outflows related to post employment benefits	(2,357,418)	17,129
Deferred outflows related to derivative hedges	2,262,055	(2,595,165)
Accounts payable and accrued liabilities	508,290	(9,981,322)
Over (under) recovered fuel costs	3,007,697	(8,668,517)
Other noncurrent liabilities	20,645,509	3,559,618
Deferred inflows related to pension plans	(1,497,452)	(839,148)
Deferred inflows related to rate stabilization	12,000,000	(1,296,902)
Deferred inflows related to deferred revenues	(538,369)	31,522,441
Deferred inflows related to derivative hedges	<u>-</u>	<u>(700,390)</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	\$ <u>144,538,643</u>	\$ <u>182,039,273</u>

See notes to financial statements.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

NOTES TO FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Business—The Grand River Dam Authority (the “Authority” or “GRDA”), a non-appropriated state agency was created by the State of Oklahoma in 1935 as a conservation and reclamation district. The Authority has the power to control, store, preserve, and distribute the waters of the Grand River and its tributaries for any useful purpose and to develop and generate water power, electric power, and electric energy within the boundaries of the Authority and to buy, sell, resell, interchange, and distribute electric power and energy. The Grand River lies entirely within Oklahoma, but its drainage basin also extends over the states of Arkansas, Kansas, and Missouri. As part of the Authority’s licensing agreements, the Authority also has lake area responsibilities. The costs of those activities are funded primarily through electricity sales. The Authority’s financial statements are included in the state of Oklahoma Comprehensive Annual Financial Report as a discretely presented component unit.

Basis of Accounting—The Authority is licensed to operate under the Federal Power Act, which requires the use of the uniform system of accounts, prescribed for public utilities and licensees. The Authority is a cost-of-service organization and establishes its rates to provide revenues sufficient to pay all expenses necessary for the operation and maintenance of the system, all payments, transfers, and deposits related to outstanding debt, and all other charges or obligations imposed by law or contract.

Basis of Presentation—The Authority’s basic financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues, expenses, gains, losses, assets, deferred outflows of resources, liabilities, and deferred inflows of resources resulting from exchange and exchange-like transactions are recognized when the exchange takes place.

The Authority’s basic financial statements conform to the provisions of standards issued by the Governmental Accounting Standards Board (GASB). GASB establishes standards for external financial reporting for all state and local governmental entities, which include Statements of Net Position, Statements of Revenues, Expenses, and Changes in Net Position, and Statements of Cash Flows. It requires the classification of net position into three components—net investment in capital assets, restricted, and unrestricted. These classifications are defined as follows:

Net Investment in Capital Assets—This component of net position consists of capital assets, net of accumulated depreciation and costs recovered or to be recovered from future revenues reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.

Restricted—This component of net position consists of funds subject to constraints placed on net position use through external constraints imposed by creditors (such as through debt covenants), contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation. When both restricted and unrestricted resources are available for use for the same purpose, it is the Authority’s practice to use unrestricted resources first, then restricted resources as they are needed, unless directed by the Board of Directors, as enabled by legislation.

Unrestricted Net Position—This component of net position consists of any remaining net position that does not meet the definition of “restricted” or “net investment in capital assets.”

Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents—Cash and cash equivalents include unrestricted cash in banks, unrestricted money market funds, and unrestricted certificates of deposit with original maturities of three months or less. Balances are presented on a net basis to the extent such balances are subject to the right of offset. Unrestricted cash and cash equivalents are shown as General Operating Accounts and restricted cash and cash equivalent are shown as Restricted Accounts on the Statements of Net Position.

Investments—Investments principally comprise U.S. government securities, U.S. government agencies, U.S. government-sponsored enterprises, state government obligations, money market funds, certificates of deposit and Certificates of Deposit Account Registry Service. The Authority reports investments at fair value, which is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. Unrestricted investments are shown as General Operating Accounts and restricted investments are shown as Restricted Accounts on the Statements of Net Position.

Fuel Stock—Fuel stock is valued using the lower of the average cost method or fair market value. The delivered commodity is expensed monthly based on fuel burned, and undistributed costs, which includes costs of coal handling and railcar and railroad track maintenance, are expensed monthly independent of fuel burned.

Materials and Supplies—Materials and supplies are valued using the average cost and specific identification methods.

Under/Over Recovered Fuel Costs— The Authority's rate structure, as approved by the Board of Directors, allows the Authority to increase or decrease monthly charges from municipal, industrial, cooperative, and off-system firm customers to recover actual fuel costs incurred by the Authority. This monthly charge, referred to as the Power Cost Adjustment (PCA), is calculated monthly based on a 12-month average of fuel costs. The cumulative difference between the actual fuel costs and the revenue collected by the PCA is reflected as either an asset ("under recovery") or liability ("over recovery") in the Authority's accompanying Statements of Net Position, as these amounts will be included in the PCA Factor and either collected from or refunded to customers of the Authority in subsequent periods.

Joint Ownership—On October 1, 2008, the Authority purchased certain assets and assumed certain liabilities in the Redbud combined-cycle gas plant near Luther, Oklahoma. The Authority's undivided interest in the assets and liabilities of the facility is 36%, while Oklahoma Gas & Electric's (OG&E) interest is 51%, and Oklahoma Municipal Power Authority's (OMPA) interest is 13%.

OG&E operates the Redbud facility under an operating agreement with the Authority and OMPA and allocates certain costs and expenses attributable to Redbud to the Authority and to OMPA in accordance with their undivided ownership interests (36% and 13%, respectively). The Redbud facility has long-term service agreements with a large industrial manufacturer for the maintenance of the gas and steam turbines. These amounts have been included in the contractual commitments in Note 9 to Financial Statements, Commitments and Contingencies.

Utility Plant and Depreciation— The cost of utility plant includes direct costs, such as material, labor, and payments to contractors, as well as indirect costs, such as engineering, supervision, and administrative and general expenses. Generally, assets which have a cost of \$500 or more at the date of acquisition and have an expected useful life of more than one year, and are not consumable, are capitalized. The cost of maintenance and repairs to property is expensed. Consistent with the Redbud plant operator's treatment, certain costs of the long-term service agreement payments for the Redbud plant are capitalized. Gain or loss is recognized on retirements and dispositions.

Depreciation is computed on the straight-line basis at rates based upon the estimated useful lives of assets. Depreciation expense, calculated as a percentage of depreciable plant, averaged approximately 5.9% and 6.0% for each of the years ended December 31, 2020 and 2019.

The utility depreciable property classes range from 3 to 87 years. The depreciable lives for the Redbud plant generally align with the majority owner.

Other Noncurrent Assets—Other noncurrent assets are made up mostly of non-utility property, long-term deposits, and long-term accounts receivable. GRDA maintains a deposit with the Southwest Power Pool. The receivable is attributed to a customer's portion of the closure and post-closure costs.

Other Noncurrent Liabilities—Other noncurrent liabilities include the accumulated provision for the closure and post-closure costs for the solid waste landfill, the accrued liability for annual leave of more than one year, and long-term deferred credits. For more information on the closure and post-closure costs, see Note 10 to Financial Statements, Landfill Closure and Post-closure Costs.

Costs Recovered or to be Recovered—Certain items included in operating costs are recovered by the Authority through rates set by the Board of Directors. The Authority, as a self-regulated utility, is subject to the requirements of GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*. GASB Statement No. 62 provides that certain costs that would otherwise be charged to revenue and expense can be deferred as regulatory liabilities and assets, based on the expected recovery from customers in future rates. Recognition of these costs is deferred to the extent that such costs are later included in rates charged by the Authority in future years.

Management continuously monitors the future recoverability of regulatory items, and when, in management's judgment, any future recovery becomes impaired, the amount of the deferred inflow is written off, as appropriate. For additional information about the costs recovered or to be recovered, see Note 5 to Financial Statements, Costs Recovered or to be Recovered.

Bonds Payable—The Authority is operating under its Board's General Bond Resolution No. 5107 ("Resolution No. 5107"), which provides for the issuance of revenue bonds and defines eligible investment securities.

Unamortized Debt Discount or Premium—Debt discount or premium are amortized using the bonds outstanding method over the periods of the applicable issues.

Unamortized Gains and Losses on Advance Refunding of Long-Term Debt—Gains and losses realized on advance refunding of long-term debt are deferred and amortized over the shorter of the life of the new bonds or the related refunding issues using the bonds outstanding method.

Deferred Outflows—In addition to assets, the Statements of Net Position reports a separate section for the deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period and so will not be recognized as an outflow of resources (expense) until then. The deferred outflows of resources relate to deferrals required by GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* (GASB 68) related to pension obligations, deferrals required by GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions* (GASB 75), related to other postemployment benefits (OPEB), deferred losses on reacquired debt, and derivative hedges. For additional information about the pension plans and OPEB, see Note 7 to Financial Statements, Retirement

Plans, Postretirement, and Other Employee Benefits. For additional information about the loss on reacquired debt, see Note 6 to Financial Statements, Bonds Payable. Refer to Note 11 to Financial Statements, Risk Management, for additional information related to derivative hedges.

Deferred Inflows—In addition to liabilities, the Statements of Net Position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The deferred inflows of resources relate to deferrals required by GASB 68 related to pension obligations, deferrals required by GASB 75 related to other postemployment benefits (OPEB), regulated operations, which includes deferred revenues from third-party contributions to capital projects and contributions to a rate stabilization account. For additional information about the pension plans and OPEB, see Note 7 to Financial Statements, Retirement Plans, Postretirement, and Other Employee Benefits. For additional information about regulated operations, see Note 5 to Financial Statements, Costs Recovered or to be Recovered.

Operating and Nonoperating Revenues and Expenses— Operating revenues include the sales of power. Other operating revenues consist primarily of transmission revenues, but also include sales of water, lake permitting fees, and renewable energy certificates. Regulatory asset revenues are the recognition of deferred revenues. Operating expenses include costs to operate and maintain the Authority's generation and transmission assets, and also include fuel, purchased power, depreciation, and administrative and general expenses. Nonoperating revenues include investment income, net increase in the fair value of investments, amortization of bond premiums, and income from nonutility operations, which includes scenic river operations fees. Nonoperating expenses include interest expense, costs recovered or to be recovered from future revenues, amortization of bond-related expenses, and expenses from nonutility operations, which include scenic river operating expenses.

Purchased Power—Purchased power includes the cost of energy purchased for resale to contract customers. Included are the settlements for the hourly net exchange of electricity in the Southwest Power Pool (SPP) Integrated Marketplace and bilateral purchases from counterparties, including energy purchased under wind purchase agreements and customer capacity purchase agreements.

Energy Hedging— GRDA has a formalized Risk Management Policy and Energy Hedging Program. Accordingly, GRDA evaluates transactions under GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*. For additional information about the hedging program, see Note 11 to Financial Statements, Risk Management.

Capital Contributions—Cash and capital assets are contributed to the Authority from customers, municipalities, or external parties. The value of property contributed to the Authority is reported as award revenues on the accompanying Statements of Revenues, Expenses, and Changes in Net Position.

Income Taxes—The Authority is a governmental agency organized under the laws of the State of Oklahoma and is not subject to federal or Oklahoma state income taxes.

Comparative Data—Certain amounts presented in the prior year data may have been reclassified to be consistent with the current year's presentation.

Adoption of New Accounting Standards—During the year, the Authority did not adopt any new accounting standards.

Recently Issued Accounting Standards—The following accounting standards will be adopted as applicable in future periods: GASB Statement No. 87, *Leases*, GASB Statement No. 91, *Conduit Debt Obligations* and GASB Statement No. 92, *Omnibus 2020*, GASB Statement No. 93, *Replacement of Interbank Offered Rates*, GASB Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*, GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*, and GASB Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457*

Deferred Compensation Plans—an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32. When they become effective, application of these standards may restate portions of these financial statements.

2. DEPOSITS AND INVESTMENTS

The Authority's Resolution No. 5107 provides for the issuance of revenue bonds and defines eligible investment securities as investments allowed pursuant to the Authority's investment policy. The Authority's Board Policy 5-2 defines the following categories of investments (1) bonds or other obligations, which are direct obligations of the United States of America, (2) bonds or other specifically named obligations, which are indirectly guaranteed by the United States of America, (3) direct and general obligations of any state which are rated in the two highest major categories of Moody's, Standard & Poor's (S&P), or Fitch, (4) certificates of deposit issued by a savings and loan association or a bank and trust company which are collateralized by the securities described in (1) and (2) or which are fully insured by the Federal Deposit Insurance Corporation (FDIC), (5) repurchase agreements with banks or government bond dealers which are secured by securities described in (1) and (2), (6) investment agreements with companies or banks whose senior debt obligations are rated no lower than the second highest category of Moody's, S&P, or Fitch, (7) short-term obligations of any state or political subdivision which are rated in the highest short-term category by Moody's or S&P, and (8) any cash swap or similar arrangement of the Bond Fund Trustee, the investments of which are limited to securities described in (1) and (2).

The Authority carries its investments at fair value. Fair value of a financial instrument is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. The Authority and trustees monitor collateral pledged to secure deposits in financial institutions for compliance with rules and regulations promulgated by the Oklahoma State Treasurer.

Interest-Rate Risk—Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Resolution No. 5107 requires that investments not mature later than such times as the funds shall be necessary to provide monies when needed for payments to be made from the Debt Service Account, and in the case of the Debt Service Reserve Account, unless otherwise provided in a Supplemental Resolution, not later than ten (10) years from the date of investment. The Authority's Board Policy 5-2 provides that general fund investments shall also not mature later than ten (10) years from the date of investment and requires specific diversification percentages by security type to reduce overall portfolio risk. The Authority attempts to hold the investments to maturity, which minimizes the exposure to rising interest rates and the investments are classified using a weighted average maturity.

As of December 31, 2020 and 2019, the Authority had the following investments (classified as either General Operating investments or Restricted investments on the Statements of Net Position) and corresponding maturities:

Investment Type	2020			
	Fair Value	Investment Maturities (in Years)		
		Less than 1	1-5	6-10
U.S. government securities				
U.S. Treasury Bills	\$ 25,973,985	\$ 25,973,985	\$ -	\$ -
U.S. Treasury Notes	205,804,496	2,523,225	130,560,798	72,720,473
U.S. government sponsored enterprises				
FFCB	25,534,370	17,206,090	8,328,280	-
FHLB	11,452,195	5,013,425	2,500,450	3,938,320
FHLMC	90,651,648	17,059,177	55,361,870	18,230,601
FNMA	61,212,239	14,138,470	40,530,156	6,543,613
GNMA	22,769,989	145,497	22,624,492	-
State government obligations	4,058,255	-	3,033,605	1,024,650
Total	\$ 447,457,177	\$ 82,059,869	\$ 262,939,651	\$ 102,457,657

Investment Type	2019			
	Fair Value	Investment Maturities (in Years)		
		Less than 1	1-5	6-10
U.S. government securities				
U.S. Treasury Bills	\$ 25,509,993	\$ 25,509,993	\$ -	\$ -
U.S. Treasury Notes	189,468,542	63,918,799	53,149,187	72,400,556
U.S. government sponsored enterprises				
FFCB	56,878,560	18,471,657	17,579,729	20,827,174
FHLB	15,690,865	8,013,560	6,686,345	990,960
FHLMC	61,804,568	1,495,035	56,691,170	3,618,363
FNMA	54,253,781	5,061,515	42,871,756	6,320,510
GNMA	11,822,092	1,857,886	9,516,335	447,871
Total	\$ 415,428,401	\$ 124,328,445	\$ 186,494,522	\$ 104,605,434

The above investment types exclude certificates of deposits.

Credit Risk—Credit risk is the risk that the insurer or other counterparty to an investment will not fulfill his obligation. Mortgage-backed securities (MBS) are not rated, because the agencies that issue such securities did not apply to any of the nationally recognized statistical rating organizations (NRSRO), such as Moody's Investors Service and S&P for ratings on their MBS. However, the agencies and the Government Sponsored Enterprises (GSE) carry "Aaa/AA+" ratings from Moody's and S&P for their debentures, and the MBS which carry their label (e.g., Federal National Mortgage Association—"FNR"; Federal Home Loan Mortgage Corporation—"FHR") are direct obligations of the agencies. Except for Federal National Mortgage Association ("Fannie Mae") and the Federal Home Loan Mortgage Corporation ("Freddie Mac"), which are government-sponsored quasi-governmental agencies, the agencies have the backing of the U.S. Government; therefore, the "Aaa/AA+/AAA" rating by Moody's, Standard & Poor's, and Fitch is implied. MBS issued by the Government National Mortgage Association, with the label GNR, carry the explicit full faith and credit of the U.S. Government. Securities issued by the Federal Farm Credit Bank (FFCB) and the Federal Home Loan Bank (FHLB) are rated "Aaa/AA+/AAA" by Moody's, S&P, and Fitch credit rating agencies. Fannie Mae and Freddie Mac are rated "Aaa/AA+/AAA" by Moody's, S&P, and Fitch credit rating agencies. The MBS are senior in the credit structure to the debentures for the FNMA and FHLMC. The certificates of deposit are held by various banks and are subject to the FDIC guarantees up to \$250,000. The Authority addresses credit risk of investments through the Authority's Board Policy 5-2 which states that investments must be backed by the U.S. government, collateralized, fully insured by

the FDIC, or be rated no lower than the second highest category of Moody's "Aa", S&P "AA", or Fitch "AA". The Authority addresses concentration of credit risk of investments through the Authority's Board Policy 5-2 which outlines the diversification desired in order to reduce overall portfolio risk from an over-concentration of assets.

As of December 31, 2020 and 2019, the Authority's investments had the following ratings:

Investment Ratings	Moody's/S&P/Fitch	2020	2019
U.S. government securities	"Aaa/AA+/AAA"	\$ 231,778,481	\$ 214,978,535
U.S. government sponsored enterprises	"Aaa/AA+/AAA"	211,620,441	200,449,866
State government obligations	"Aa1/AA/AA" or higher	4,058,255	-

As of December 31, 2020 and 2019, the Authority had the following portfolio of investments with credit exposure by investment type as a percentage of total investments:

Concentration of Credit Risk

	2020	2019
U.S. government securities		
U.S. Treasury Bills	5.8 %	6.1 %
U.S. Treasury Notes	46.0	45.6
U.S. government sponsored enterprises		
FFCB	5.7	13.7
FHLB	2.5	3.8
FHLMC	20.3	14.9
FNMA	13.7	13.1
GNMA	5.1	2.8
State government obligations	0.9	0.0

Custodial Credit Risk—Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investment for collateral securities that are in the possession of an outside party. All money to be held by the Authority under Resolution No. 5107 is required to be deposited in one or more depositories in the name of the Authority. All money deposited under the provisions of Resolution No. 5107 with the Bond Fund Trustee and the Construction Fund Trustee is required to be held in trust and applied only in accordance with the provisions of Resolution No. 5107; money held by the Authority and deposited in any depository is required to be held and secured in the manner provided by Oklahoma law.

Restricted noncurrent investment funds in the bond service reserve account, and certain funds in the construction account are included in Investments in Noncurrent assets on the Statements of Net Position. Restricted current investment funds in the bond service account and certain deposits in the construction account are included in Investments in Current assets on the Statements of Net Position. Restricted investments (noncurrent and current) are not available for general operations.

Unrestricted cash deposits, certificates of deposits, and money market funds are fully collateralized or covered by FDIC.

Fair Value Measurements—According to GASB Statement No. 72, *Fair Value Measurement and Application*, the Authority is required to disclose the valuation technique and level of inputs for all investments. The Authority's investments fall into input Level 1 and Level 2.

Level 1 inputs are quoted (unadjusted) prices in active markets for identical assets or liabilities that the government can access at the measurement date. Observable markets include exchange markets, dealer markets, brokered markets and principal-to-principal markets.

Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. These inputs are derived from or corroborated by observable market data through correlation or by other means, e.g., "market-corroborated" inputs. Level 2 inputs include:

- Quoted prices for similar assets or liabilities in active markets
- Quoted prices for identical or similar assets or liabilities in inactive markets
- Inputs other than quoted prices that are observable for the asset or liability
- Market-corroborated inputs

Level 3 inputs are unobservable inputs for the asset or liability; they should be used only when relevant Level 1 and Level 2 inputs are unavailable. Governments may use their own data to develop unobservable inputs if there is no information available without undue cost and effort. The Authority has no investments that fall into Level 3.

Money Market Funds and Certificates of Deposit are not subject to classification.

The valuation methods for each investment listed in the following fair value of investments table include interactive data from Government/Agency Sector (GV/AGENCY) and Collateralized Mortgage Obligation Sector) pricing sources.

	2020			
	Fair Value			
	Level 1	Level 2	Level 3	Total
U.S. government securities	\$ 231,778,481	\$ -	\$ -	\$ 231,778,481
U.S. government sponsored enterprises	87,801,897	123,818,544	-	211,620,441
State government obligations	-	4,058,255	-	4,058,255
Derivative instruments	-	333,110	-	333,110

	2019			
	Fair Value			
	Level 1	Level 2	Level 3	Total
U.S. government securities	\$ 234,992,535	\$ -	\$ -	\$ 234,992,535
U.S. government sponsored enterprises	66,984,996	113,450,870	-	180,435,866
Derivative instruments	-	2,595,165	-	2,595,165

Carrying Values—Cash and cash equivalents and current and noncurrent investments on December 31, 2020 and 2019, follows:

	2020							
	General Operations	Board Designated (Restricted)	Rate Stabilization (Restricted)	Bond Service (Restricted)	Construction (Restricted)	Bond Service Reserve (Restricted)	Special Purposes (Restricted)	Total
Current:								
Cash deposits—net	\$ 118,537	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,872	\$ 120,409
Money market funds—cash and investments	33,984,573	-	-	760,116	-	-	133,865	34,878,554
U.S. government securities, agencies, sponsored enterprises & state government obligations	46,727,471	-	-	25,770,113	-	-	-	72,497,584
Certificates of Deposit Account Registry Service	10,603,192	-	-	-	-	-	2,143,380	12,746,572
Certificates of deposits—maturity < 12 months	1,902,993	-	-	-	-	-	-	1,902,993
Total current	93,336,766	-	-	26,530,229	-	-	2,279,117	122,146,112
Noncurrent:								
U.S. government securities, agencies, sponsored enterprises & state government obligations	209,347,964	40,381,000	31,703,098	-	-	93,527,531	-	374,959,593
Money market funds	-	-	-	-	-	3,540,505	-	3,540,505
Total noncurrent	209,347,964	40,381,000	31,703,098	-	-	97,068,036	-	378,500,098
Total cash and investments	\$ 302,684,730	\$ 40,381,000	\$ 31,703,098	\$ 26,530,229	\$ -	\$ 97,068,036	\$ 2,279,117	\$ 500,646,210

2019

	General Operations	Board Designated (Restricted)	Rate Stabilization (Restricted)	Bond Service (Restricted)	Construction (Restricted)	Bond Service Reserve (Restricted)	Special Purposes (Restricted)	Total
Current:								
Cash deposits—net	\$ 1,679,303	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,159,412	\$ 3,838,715
Money market funds—cash and investments	26,853,086	-	-	577,211	2,166,076	-	134,125	29,730,498
U.S. government securities, agencies, sponsored enterprises & state government obligations	80,053,325	-	-	25,085,194	-	-	-	105,138,519
Certificates of Deposit Account Registry Service	10,328,466	-	-	-	-	-	-	10,328,466
Certificates of deposits—maturity < 12 months	1,892,798	-	-	-	-	-	-	1,892,798
Total current	120,806,978	-	-	25,662,405	2,166,076	-	2,293,537	150,928,996
Noncurrent:								
U.S. government securities, agencies, sponsored enterprises & state government obligations	163,563,997	39,998,000	19,703,098	-	-	87,024,786	-	310,289,881
Money market funds	-	-	-	-	-	6,002,057	-	6,002,057
Total noncurrent	163,563,997	39,998,000	19,703,098	-	-	93,026,843	-	316,291,938
Total cash and investments	\$ 284,370,975	\$ 39,998,000	\$ 19,703,098	\$ 25,662,405	\$ 2,166,076	\$ 93,026,843	\$ 2,293,537	\$ 467,220,934

Additional information relating to cash and investment restrictions follows:

Rate Stabilization—Customer contracts contain requirements for the establishment and funding of a Rate Stabilization Account. Board Resolution No. 5107 and No. 5358 contain further guidelines for the establishment, maintenance, and allocation of the fund. For the year ended December 31, 2016, the Authority established and deposited \$21.0 million into the Rate Stabilization Account (RSA I). In 2019, \$1.3 million was used to credit wholesale full requirements customers, at a rate of \$.00055 per kWh. In October 2020, Board Resolution 5381 was approved to give the CEO the discretion to defer certain revenues and authorized the creation of Rate Stabilization Account II. For the year ended December 31, 2020, \$19.7 million in deferred revenues from RSA I was recognized. In addition, GRDA deferred an additional \$31.7 million of operating revenues into RSA II.

Bond Service—On December 31, the bond service fund in the accompanying Statements of Net Position reflects the restricted amount sufficient to pay seven months of principal and one month of interest due the following June 1.

Construction—On December 31, 2019, the construction fund in the accompanying Statements of Net Position reflects insurance proceeds received in a trust fund for the settlement related to the 2019 GREC 2 Insurance Claim.

Bond Service Reserve—The restricted amount in the accompanying Statements of Net Position reflects, at a minimum, the maximum aggregate debt service requirement for one year for all bonds outstanding per Resolution No. 5107.

Restricted for Special Purposes: FERC—Due to agreements with FERC, the Authority has restricted money for two purposes. The first restriction is for the Fish and Wildlife Mitigation Fund, established in June 2003 as required by FERC. The Authority funded an initial deposit of \$260,000 in 2003, and was required to make \$100,000 annual contributions (adjusted for inflation) each year the Pensacola Dam license is in effect. In December 2015, the Authority funded the balance of \$1.45 million, which represented the estimated annual contributions through the year 2022. Generally, the purpose of this fund is to support projects to protect and enhance fish and wildlife resources at the direction of various groups external to the Authority. Expenditures of approximately \$35,040 and \$42,509 were made from the fund in 2020 and 2019, respectively. The second restriction is for the Nature Conservancy Fund, established in May 2008 as required by FERC. The Authority funded an initial deposit of \$27,000 in 2008. The Authority is required to replenish the fund to \$27,000 on the first working day in January of each year. Generally, the purpose of this fund is to maintain bat caves protection on Grand Lake. Expenditures of approximately \$261 and \$-0- were made from the fund in 2020 and 2019, respectively.

Restricted for Special Purposes: Other—The Authority also has restricted money for riparian leases under the Oklahoma Conservation Commission and Grand River Dam Authority Cooperative Agreement, GRDA either acquired or secured and paid for deeds of conservation easements. Enrollees that wish to terminate and/or are removed due to breach of agreement from the Riparian Protection Easement Program are required to pay back a pro-rated amount of the remaining years of the lump-sum payment received to the Authority as outlined in the agreement, the balance of which was \$107,125 as of both December 31, 2020 and 2019, with the obligation to use the funds to secure additional easements within the Illinois River Watershed.

The Reserve and Contingency Fund I and II—These designated, restricted funds were established in December 2004 as Board-designated funds for future use. The intended use of these funds will be for extraordinary items such as maintenance, operational and environmental expenses, or for expenses related to unforeseen risks, such as unscheduled outages, unexpected purchased power, or other extraordinary expenses not covered by insurance proceeds. These Board-designated funds had a balance of \$40.4 million and \$40.0 million as of December 31, 2020 and 2019, respectively.

Line of Credit—In 2015, the Authority established an unsecured line of credit with Bank of Oklahoma to meet the requirements for participating in the SPP Integrated Marketplace. In both December 31, 2020 and 2019, the line of credit was \$8.0 million. The line of credit expires May 31, 2022, but has an auto-renewal clause.

Realized Gains and Realized Losses—For purposes of computing gross realized gains and gross realized losses, cost is determined by specific identification. The calculation of realized gains is independent of the calculation of the net increase in the fair value of investments. Realized gains and losses on any investments that had been held for more than the current year may have been recognized as an increase or decrease in the fair value of investments reported in prior years.

Gross realized gains and gross realized losses on sales of investment securities for the years ended December 31, 2020 and 2019, were as follows:

	2020	2019
Gross realized gains	\$ 13,879,743	\$ 406,233
Gross realized losses	(3,464,508)	(2,687,465)

Gross realized gains and losses are included in Investment income-net in the accompanying Statements of Revenues, Expenses, and Changes in Net Position.

3. RECEIVABLES

Current accounts receivable is comprised on December 31, 2020 and 2019 of the following amounts:

	2020	2019
Customers	\$ 32,258,685	\$ 29,831,924
Less allowance for doubtful accounts	(100,000)	(100,000)
Other	<u>4,629,234</u>	<u>3,798,894</u>
Total	<u>\$ 36,787,919</u>	<u>\$ 33,530,818</u>

On December 31, 2020, the Authority's Other current accounts receivable, from the table above, includes rebates, reimbursable amounts from grants, mutual aid events, and deeds of conservation, as well as lake-related billings.

On December 31, 2020 and 2019, the Authority has noncurrent receivables included in Other noncurrent assets of \$814,197 and \$252,202, respectively.

4. UTILITY PLANT

A summary of changes in utility plant for the years ended December 31, 2020 and 2019, follows:

	2020			Balance December 31, 2020
	Balance December 31, 2019	Additions/ Transfers	Retirements	
Capital assets—nondepreciable:				
Land	\$ 38,501,422	\$ 711,520	\$ (36,025)	\$ 39,176,917
Construction work in progress	30,890,535	4,581,855	-	35,472,390
Total capital assets—nondepreciable	69,391,957	5,293,375	(36,025)	74,649,307
Capital assets—depreciable:				
GREC 1 coal-fired plant	334,566,390	(92,979,916)	(241,586,474)	-
GREC 2 coal-fired plant	527,613,218	108,622,589	(3,996,511)	632,239,296
GREC 3 combined-cycle gas plant	457,334,619	(2,508,992)	-	454,825,627
Redbud combined-cycle gas plant	384,315,499	1,454,220	(680,985)	385,088,734
Hydraulic production plants	185,985,082	1,566,525	(91,864)	187,459,743
Transmission system	451,529,762	23,739,666	(2,330,161)	472,939,267
Other properties and production plant	137,236,423	6,526,047	(11,601,047)	132,161,423
	2,478,580,993	46,420,139	(260,287,042)	2,264,714,090
Less accumulated depreciation:				
GREC 1 coal-fired plant	(316,265,541)	79,071,913	237,193,628	-
GREC 2 coal-fired plant	(425,960,384)	(99,073,832)	6,119,953	(518,914,263)
GREC 3 combined-cycle gas plant	(35,580,184)	(13,296,937)	-	(48,877,121)
Redbud combined-cycle plant	(199,611,879)	(16,927,014)	499,015	(216,039,878)
Hydraulic production plants	(42,981,013)	(2,955,436)	37,132	(45,899,317)
Transmission system	(182,936,253)	(10,136,697)	1,816,347	(191,256,603)
Other properties and production plant	(91,938,364)	(9,104,154)	10,872,247	(90,170,271)
	(1,295,273,618)	(72,422,157)	256,538,322	(1,111,157,453)
Total capital assets—depreciable	1,183,307,375	(26,002,018)	(3,748,720)	1,153,556,637
Net utility plant	\$ 1,252,699,332	\$ (20,708,643)	\$ (3,784,745)	\$ 1,228,205,944

	2019			
	Balance December 31, 2018	Additions/ Transfers	Retirements	Balance December 31, 2019
Capital assets—nondepreciable:				
Land	\$ 38,239,227	\$ 355,801	\$ (93,606)	\$ 38,501,422
Construction work in progress	25,649,395	5,241,140	-	30,890,535
Total capital assets—nondepreciable	63,888,622	5,596,941	(93,606)	69,391,957
Capital assets—depreciable:				
GREC 1 coal-fired plant	374,817,868	(39,937,453)	(314,025)	334,566,390
GREC 2 coal-fired plant	483,398,036	44,779,683	(564,501)	527,613,218
GREC 3 combined-cycle gas plant	456,766,573	568,046	-	457,334,619
Redbud combined-cycle gas plant	361,729,004	28,580,708	(5,994,213)	384,315,499
Hydraulic production plants	183,742,549	2,537,505	(294,972)	185,985,082
Transmission system	394,021,628	61,090,404	(3,582,270)	451,529,762
Other properties and production plant	133,075,296	9,059,542	(4,898,415)	137,236,423
	2,387,550,954	106,678,435	(15,648,396)	2,478,580,993
Less accumulated depreciation:				
GREC 1 coal-fired plant	(320,076,951)	3,362,954	448,456	(316,265,541)
GREC 2 coal-fired plant	(403,140,745)	(23,417,665)	598,026	(425,960,384)
GREC 3 combined-cycle gas plant	(22,476,755)	(13,103,429)	-	(35,580,184)
Redbud combined-cycle plant	(184,593,196)	(20,687,066)	5,668,383	(199,611,879)
Hydraulic production plants	(40,433,073)	(2,758,209)	210,269	(42,981,013)
Transmission system	(176,197,524)	(9,057,550)	2,318,821	(182,936,253)
Other properties and production plant	(86,271,396)	(9,605,815)	3,938,847	(91,938,364)
	(1,233,189,640)	(75,266,780)	13,182,802	(1,295,273,618)
Total capital assets—depreciable	1,154,361,314	31,411,655	(2,465,594)	1,183,307,375
Net utility plant	\$ 1,218,249,936	\$ 37,008,596	\$ (2,559,200)	\$ 1,252,699,332

The change in construction work in progress during 2020 and 2019 is presented on a net basis to avoid a duplication of additions and retirements in the preceding tables. In 2019, the Authority chose early adoption of GASB Statement No. 89, which ceased capitalization of interest; therefore, no capitalized interest is included in construction work in progress. The Authority had depreciation and amortization expense of \$72,422,157 and \$75,266,780 for 2020 and 2019, respectively.

Removal costs are netted with retirements in the accumulated depreciation section of Utility Plant, which may cause accumulated depreciation for a given class of capital assets to exceed the total amount reported for those assets.

The Authority had construction contractual commitments on December 31, 2020, of approximately \$51,900,000 for equipment and construction contracts. Major projects include the construction of the WOKA water park for approximately \$29,079,000; construction of transmission lines and substations for approximately \$15,473,000; refurbishment of the Pensacola flood gates for approximately \$2,249,000; and miscellaneous hydro projects for approximately \$1,591,000.

On the evening of July 1, 2016, a lightning strike precipitated a fire at the GREC, which resulted in the impairment of assets within GREC Unit 2 (GREC 2). The turbine-generator and auxiliary systems were extensively damaged and required significant restoration before the assets were able to return to service. GREC 2 successfully returned to operation September 14, 2017. In 2019, the final reimbursement of \$1,505,309 was processed and the receivable was cleared.

On July 29, 2019, GREC 2 experienced a mechanical failure and subsequent shutdown, which resulted in damages to the low pressure (LP) section of the turbine. GREC 2 successfully returned to operation June 9, 2020. In 2020, the final reimbursement of \$6,199,705 was processed and the receivable was cleared.

The Authority entered a lease vehicle program in 2016, initially leasing 14 passenger vehicles with a term of 48 months with an additional 3 passenger vehicles added in 2017. The leased equipment is amortized on a straight-line basis over the shorter of the useful life of the related assets or the lease term. The gross amount of assets acquired under capital leases for 2019 was \$371,890. Total accumulated amortization related to the leased vehicles was \$322,432 on December 31, 2019. The balance of capital leases payable on December 31, 2019, was \$49,458 and recorded as a portion of accounts payable and accrued liabilities. The first 14 passenger vehicles were returned at the end of their lease term in 2020, resulting in a gross amount of assets acquired under capital leases for 2020 of \$75,939 for the remaining 3 vehicles. Total accumulated amortization related to the leased vehicles was \$70,128 on December 31, 2020. The balance of capital leases payable on December 31, 2020, was \$2,134 and was recorded as a portion of accounts payable and accrued liabilities. The Authority currently has no plans to expand the program beyond 2021. The interest rate related to the lease obligation is variable based on the current interest rate on delivery date. The interest portion of the capital lease minimum payments was \$8,719 and \$14,668 in 2020 and 2019, respectively.

In 2017, the Authority entered a Riparian Conservation Easement program with the Oklahoma Conservation Commission (OCC). GRDA secures 30-year minimum easement agreements with landowners. A lump sum is paid upfront for each easement. The costs are amortized on a straight-line basis, and the residual values are the difference between the total amortization and the amortization to date. For each easement, a corresponding liability is recorded, and relieved for the same life.

Riparian Conservation Easements

	Initial Cost	Depreciation	Carrying Cost
2019	\$ 1,593,863	\$ (271,448)	\$ 1,322,415
2020	1,574,562	(47,554)	1,527,008

5. COSTS RECOVERED OR TO BE RECOVERED

In 2017, the Authority determined that it should defer the capital asset portion of the revenue proceeds from insurance recoveries resulting from the July 2016 GREC fire restoration as per GASB Statement No. 62. Deferral of revenue in accordance with this Statement requires Board Resolution. Board Resolution No. 5307 pertaining to this matter was passed and adopted by the Board of Directors on March 8, 2017.

Board Resolution 5325 was then passed and adopted by the Board of Directors on December 13, 2017. This Board Resolution further grants the Chief Financial Officer the discretion to record certain revenues as regulatory assets regarding revenues related to certain third-party reimbursement for capital assets procured or constructed and recognize those revenues proportionately as said assets are depreciated.

The deferred inflow of resources consists of recognized revenues associated with certain third-party reimbursement on capital assets, as approved by one of the two resolutions described above. This amount is a portion of deferred inflows related to regulated operations on the Statements of Net Position. A roll forward of costs recovered or to be recovered from future revenues follows:

	Balance 12/31/2019	Increase	Decrease	Balance 12/31/2020
Third Party Reimbursement (Capital Assets)	\$ 57,470,234	\$ 3,854,699	\$ 4,393,068	\$ 56,931,865
Rate Stabilization Fund	19,703,098	31,703,098	19,703,098	31,703,098
Totals	<u>\$ 77,173,332</u>	<u>\$ 35,557,797</u>	<u>\$ 24,096,166</u>	<u>\$ 88,634,963</u>
	Balance 12/31/2018	Increase	Decrease	Balance 12/31/2019
Third Party Reimbursement (Capital Assets)	\$ 25,947,793	\$ 33,196,760	\$ 1,674,319	\$ 57,470,234
Rate Stabilization Fund	21,000,000	-	1,296,902	19,703,098
Totals	<u>\$ 46,947,793</u>	<u>\$ 33,196,760</u>	<u>\$ 2,971,221</u>	<u>\$ 77,173,332</u>

In 2020, the Authority passed Board Resolution 5388, which granted the Chief Financial Officer the discretion to adopt regulatory accounting for the deferral of certain expenses, in accordance with GASB 62. Additionally in 2020, the Authority expanded the policy for regulatory assets. This created a threshold for the treatment and recognition of revenues, with a minimum of \$1.0 million for individual projects, or \$100,000 in annual amortization amounts. As a result of the established threshold, the Authority recognized \$2.4 million in revenues, previously held in deferred inflows.

6. BONDS PAYABLE

A summary of changes in bonds payable for the years ended December 31, 2020 and 2019, follows:

	2020			December 31, 2020
	December 31, 2019	Bonds Issued	Retirements	
Revenue Bonds, 2010 Series A & B:				
3% to 5.25% Series 2010A—maturing in 2015 through 2040	\$ 4,095,000	\$ -	\$ (4,095,000)	\$ -
3.71% to 7.155% Series 2010B (fully taxable)—maturing 2015 through 2040	<u>70,220,000</u>	<u>-</u>	<u>(1,590,000)</u>	<u>68,630,000</u>
Total Series 2010 A & B	<u>74,315,000</u>	<u>-</u>	<u>(5,685,000)</u>	<u>68,630,000</u>
Revenue Bonds, 2014 Series A & B:				
3% to 5% Series 2014A—maturing in 2018 through 2039	211,350,000	-	(7,405,000)	203,945,000
1.804% to 3.961% Series 2014B (fully taxable)—maturing 2018 through 2039	<u>79,850,000</u>	<u>-</u>	<u>(2,635,000)</u>	<u>77,215,000</u>
Total Series 2014 A & B	<u>291,200,000</u>	<u>-</u>	<u>(10,040,000)</u>	<u>281,160,000</u>
Revenue Bonds, 2016 Series A & B:				
3% to 5% Series 2016A—maturing in 2019 through 2039	464,320,000	-	(21,245,000)	443,075,000
1.828% to 3.503% Series 2016B (fully taxable)—maturing 2020 through 2033	<u>21,075,000</u>	<u>-</u>	<u>(535,000)</u>	<u>20,540,000</u>
Total Series 2016 A & B	<u>485,395,000</u>	<u>-</u>	<u>(21,780,000)</u>	<u>463,615,000</u>
Revenue Bonds, 2017 Series:				
3% to 5% Series 2017—maturing in 2021 through 2040	<u>90,455,000</u>	<u>-</u>	<u>-</u>	<u>90,455,000</u>
Total bonds payable	<u>\$ 941,365,000</u>	<u>\$ -</u>	<u>\$ (37,505,000)</u>	<u>\$ 903,860,000</u>
Less current portion	<u>(37,505,000)</u>			<u>(39,240,000)</u>
Long-term portion	903,860,000			864,620,000
Add (deduct)				
Unamortized debt premium	97,474,228	-	(10,662,823)	86,811,405
Unamortized debt discount	<u>(38,706)</u>	<u>-</u>	<u>38,706</u>	<u>-</u>
Long-term bonds payable	<u>\$ 1,001,295,522</u>	<u>\$ -</u>	<u>\$ (10,624,117)</u>	<u>\$ 951,431,405</u>

	2019			December 31, 2019
	December 31, 2018	Bonds Issued	Retirements	
Revenue Bonds, 2010 Series A & B: 3% to 5.25% Series 2010A—maturing in 2015 through 2040	\$ 8,035,000	\$ -	\$ (3,940,000)	\$ 4,095,000
3.71% to 7.155% Series 2010B (fully taxable)—maturing 2015 through 2040	<u>71,730,000</u>	<u>-</u>	<u>(1,510,000)</u>	<u>70,220,000</u>
Total Series 2010 A & B	<u>79,765,000</u>	<u>-</u>	<u>(5,450,000)</u>	<u>74,315,000</u>
Revenue Bonds, 2014 Series A & B: 3% to 5% Series 2014A—maturing in 2018 through 2039	218,555,000	-	(7,205,000)	211,350,000
1.804% to 3.961% Series 2014B (fully taxable)—maturing 2018 through 2039	<u>82,390,000</u>	<u>-</u>	<u>(2,540,000)</u>	<u>79,850,000</u>
Total Series 2014 A & B	<u>300,945,000</u>	<u>-</u>	<u>(9,745,000)</u>	<u>291,200,000</u>
Revenue Bonds, 2016 Series A & B: 3% to 5% Series 2016A—maturing in 2019 through 2039	475,330,000	-	(11,010,000)	464,320,000
1.828% to 3.503% Series 2016B (fully taxable)—maturing 2020 through 2033	<u>21,075,000</u>	<u>-</u>	<u>-</u>	<u>21,075,000</u>
Total Series 2016 A & B	<u>496,405,000</u>	<u>-</u>	<u>(11,010,000)</u>	<u>485,395,000</u>
Revenue Bonds, 2017 Series: 3% to 5% Series 2017—maturing in 2021 through 2040	<u>90,455,000</u>	<u>-</u>	<u>-</u>	<u>90,455,000</u>
Total bonds payable	<u>\$ 967,570,000</u>	<u>\$ -</u>	<u>\$ (26,205,000)</u>	<u>\$ 941,365,000</u>
Less current portion	<u>(26,205,000)</u>			<u>(37,505,000)</u>
Long-term portion	941,365,000			903,860,000
Add (deduct):				
Unamortized debt premium	108,503,111	-	(11,028,883)	97,474,228
Unamortized debt discount	<u>(131,600)</u>	<u>-</u>	<u>92,894</u>	<u>(38,706)</u>
Long-term bonds payable	<u>\$ 1,049,736,511</u>	<u>\$ -</u>	<u>\$ (10,935,989)</u>	<u>\$ 1,001,295,522</u>

Oklahoma state statutes have authorized the Authority to issue revenue bonds from time to time with the aggregate outstanding indebtedness not to exceed \$1,410,000,000.

The scheduled maturities of bonds payable on December 31, 2020, are as follows and reflect the scheduled payments to be remitted by the trustee to the bondholders:

Year Ended December 31	Due to Bond Holders		
	Annual Principal	Semiannual Interest	Calendar Year Bond Payments
2021	\$ 39,240,000	\$ 21,841,374	
		20,965,270	\$ 82,046,644
2022	41,675,000	20,965,270	
		20,046,383	82,686,653
2023	43,080,000	20,046,383	
		19,004,104	82,130,487
2024	49,225,000	19,004,104	
		17,851,468	86,080,572
2025	49,425,000	17,851,468	
		16,657,622	83,934,090
2026-2030	266,165,000	134,844,703	401,009,703
2031-2035	257,665,000	66,599,217	324,264,217
2036-2040	157,385,000	18,600,737	175,985,737
	<u>\$ 903,860,000</u>	<u>\$ 414,278,103</u>	<u>\$ 1,318,138,103</u>

To secure the bonds, the Authority has pledged all revenues of the Authority. Resolution No. 5107 and supplemental bond resolutions specify multiple covenants made by the Authority to the Bond Fund Trustee and bondholders. Among the more significant requirements, the Authority has covenanted to charge adequate rates, operate and maintain the facilities, and make any necessary repairs, renewals, replacements, and improvements. System properties are not to be encumbered, sold, or disposed of, and additional parity bonds are not to be issued unless certain conditions are met. As of December 31, 2020, the Authority complied with bond covenants.

In general, federal tax laws require the Authority to rebate to the US Treasury any profit from investments that yield a higher rate than the tax-exempt revenue bond proceeds. The Authority has no liability for arbitrage rebate on December 31, 2020 and 2019, respectively.

All of the Authority's outstanding bonds fall under Resolution No. 5107, which contains a provision that if one or more Events of Default shall happen, then either the Bond Trustee or the Holders may declare the principal of all Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately.

7. RETIREMENT PLANS, POSTRETIREMENT, AND OTHER EMPLOYEE BENEFITS

The Authority participated in five retirement plans during 2020 and 2019. The plans currently available to the Authority personnel include three defined benefit plans and two defined contribution plans. The defined benefit plans include the Oklahoma Public Employees Retirement System (OPERS) plan, the Oklahoma Law Enforcement Retirement System (OLERS) plan, and the GRDA postemployment Healthcare Plan. The defined contribution plans include the Oklahoma State Employees Deferred Compensation Plan (the "State Plan") and the OPERS Pathfinder plan. A summary of significant data for each of the retirement plans and discussion of postemployment and other employee benefits follows:

The Authority is a participant in two multiple employer defined benefit pension plans, the Oklahoma Public Employees Retirement Plan (the "OPERS Plan") and the Oklahoma Law Enforcement Retirement Plan (the "OLERS Plan"). The table below shows both pensions as reported in the basic financial statements.

For the year ended December 31, 2020:

	OPERS	OLERS	Total
Deferred outflows of resources	\$ 12,135,043	\$ 1,349,651	\$ 13,484,694
Deferred inflows of resources	503,704	100,055	603,759
Pension liability (asset)	19,877,360	3,314,998	23,192,358
Pension expense recognized	12,405,678	1,148,296	13,553,974

For the year ended December 31, 2019:

	OPERS	OLERS	Total
Deferred outflows of resources	\$ 3,343,621	\$ 943,282	\$ 4,286,903
Deferred inflows of resources	1,818,794	86,351	1,905,145
Pension liability (asset)	3,166,965	2,296,870	5,463,835
Pension expense recognized	5,671,722	984,596	6,656,318

The Authority's proportionate share of plan assets for OPERS as of December 31, 2020, is \$216,581,973, while proportionate share of plan liabilities is \$236,456,178. The Authority's proportionate share of plan assets for OPERS as of December 31, 2019, were \$228,108,750, while proportionate share of plan liabilities was \$231,275,720.

The Authority's proportionate share of plan assets for OLERS as of December 31, 2020, is \$15,400,193, while proportionate share of plan liabilities is \$18,715,191. The Authority's proportionate share of plan assets for OLERS as of December 31, 2019, were \$16,077,235, while proportionate share of plan liabilities was \$18,374,106.

Oklahoma Public Employees Defined Benefit Retirement Plan

General Information about the Pension Plan

Plan Description. The Authority contributes to the OPERS Plan, a cost-sharing multiple-employer public employee defined benefit retirement plan administered by the OPERS, a component unit of the State of Oklahoma (the "State"). The OPERS Plan provides retirement, disability and death benefits to its members and beneficiaries, primarily state, county, and local agency employees. The benefits provided are established by and may be amended by the legislature of the State. Title 74 of the Oklahoma Statutes, Sections 901 through 943, assigns the authority for management and operation of the OPERS Plan to the OPERS Board of Trustees.

In 2014, the Oklahoma Legislature enacted legislation effective November 1, 2015, requiring a defined contribution system be established by the OPERS for most state employees first employed by a participating State employer on or after November 1, 2015, and ceasing the acceptance of any new participants to the defined benefit retirement plan.

OPERS issues a publicly available financial report that includes financial statements and required supplementary information for OPERS. That annual report may be obtained online at www.opers.ok.gov, by writing to OPERS, PO Box 53007, Oklahoma City, OK 73152-3007, or by calling 1-800-733-9008.

Vesting. OPERS requires eight years of credited service (including six full years of full-time equivalent employment) to be eligible to vest.

Benefits Provided. Employees who became a member of OPERS before November 1, 2011, can begin receiving full, unreduced retirement benefits at the age of 62 with six full years of full-time equivalent employment; or when the sum of the member's age and years of service equals 80 when membership began before July 1, 1992; or when the sum of the member's age and years of service equals 90 when membership began on or after July 1, 1992.

Employees who became a member of OPERS on or after November 1, 2011, can begin receiving full, unreduced retirement benefits at the age of 65 with six full years of full-time equivalent employment; or when the member is at least 60 years of age and the sum of the member's age and years of service equals 90.

Employees may retire at age 60 (55 when membership began before November 1, 2011) and receive reduced benefits with at least 10 years of participating service. Members who choose early retirement will receive a permanent actuarial reduction in benefit based on the age at retirement.

The benefit on or after normal retirement, payable monthly for life, is 2% of final average compensation, multiplied by years of credited service. For members who have elected the Step-Up Option, a 2.5% multiplier is applied to the "stepped-up" full years.

Contributions. OPERS members and the Authority are required to contribute to the OPERS Plan at a rate set by statute. Contribution rates are established and may be amended by the State. Each member participates based on gross salary earned (excluding overtime). As state employees, the Authority employees contribute 3.5% on salary. The Authority contributed 16.5%, on all salary for the Plan's fiscal years-ended June 30, 2020 and 2019.

OPERS members have the option to elect to increase the benefit computation factor for all future service from 2.0% to 2.5%. The election is irrevocable, binding for all future employment under OPERS, and applies only to full years of service. Those who make the election pay the standard contribution rate plus an additional contribution rate of 2.91% which is actuarially determined. The election is available for all state, county, and local government employees, except for elected officials and hazardous duty members.

During the reporting period for 2020 and 2019, the OPERS recognized \$5,838,607 and \$6,243,328, respectively, in contributions from the Authority.

Contribution rates as of December 31, 2020 and 2019, are as follows:

Employee Category	Employee	Employer
General	3.50 %	16.50 %
Elected Officials	3.50	16.50

OPERS Hazardous Duty Employees. On July 1, 2016, SB 1388 became effective, which required the Authority's public safety officers to participate in OPERS as Hazardous Duty Employees. This group of employees contributes 8% of allowable compensation as defined in 74 O.S. § 902(9) for a maximum of 20 years of hazardous duty participating service, while the Authority contributes 16.5%, on allowable compensation. After the employee has contributed at the higher rate for 20 years, the employee will contribute at the nonhazardous duty rate. Employees vest when they have eight years of credited service (including six full years of full-time-equivalent employment). Because all Authority employees will have become members of the plan after November 1, 2011, the employee can begin receiving full, unreduced retirement benefits when he or she is at least age 65 with six full years of full-time-equivalent employment or is at least 60 years of age and the sum of age and years of service equals 90.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Plan and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms, investments are reported at fair value.

On December 31, 2020, the Authority reported a liability of \$19, 877, 360 for its cumulative proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2020, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2020. The Authority's proportion of the net pension liability was based on the Authority's share of contributions to the pension plan relative to the contributions of all participating employers. On June 30, 2020, the Authority's proportion was 2.2276% which is a 6.3% decrease from the prior year. For the year ended December 31, 2020, the Authority recognized pension expense of \$12,405,678.

At December 31, 2019, the Authority reported a liability of \$3,166,965 for its cumulative proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2019. The Authority's proportion of the net pension liability was based on the Authority's share of contributions to the pension plan relative to the contributions of all participating employers. At June 30, 2019, the Authority's proportion was 2.3778%, which is a 2.6% decrease from the prior year. For the year ended December 31, 2019, the Authority recognized pension expense of \$5,671,722. As of December 31, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>OPERS Plan 2020</u>	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 110,007
Changes in assumptions	7,098,869	-
Net differences between projected and actual earnings on pension plan investments	2,137,685	-
Employer contributions subsequent to the measurement date	2,898,489	-
Change in proportion	<u>-</u>	<u>393,697</u>
Total	<u>\$ 12,135,043</u>	<u>\$ 503,704</u>

As of December 31, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>OPERS Plan 2019</u>	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 19,250	\$ 926,814
Changes in assumptions	170,682	-
Net differences between projected and actual earnings on pension plan investments	-	775,472
Employer contributions subsequent to the measurement date	2,935,300	-
Change in proportion	<u>218,389</u>	<u>116,508</u>
Total	<u>\$ 3,343,621</u>	<u>\$ 1,818,794</u>

The amounts reported as deferred outflows related to employer contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the subsequent year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ended December 31	OPERS Plan	
	Net Pension Expense	
2021	\$	3,249,837
2022		2,965,070
2023		1,512,513
2024		<u>1,005,430</u>
	\$	<u>8,732,850</u>

Actuarial Assumptions. The total pension liability in the July 1, 2020, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2020	2019
Actuarial valuation date:	July 1, 2020	July 1, 2019
Measurement date of net pension liability:	June 30, 2020	June 30, 2019
Actuarial cost method:	Entry age	Entry age
Asset valuation method for contributions:	Five-year moving average of expected and actual market values	Five-year moving average of expected and actual market values
Asset valuation method for assets under GASB 68:	Fair value of assets	Fair value of assets
Long-term expected rate of return:	6.5%	7%
Discount rate:	6.5%	7%
Salary increases:		
Inflation:	2.5%	2.75%
Seniority/merit:	3.5% to 9.25% per year including inflation	3.5% to 9.5% per year including inflation
Mortality:	RP-2014 Blue Collar Active Mortality Table	RP-2014 Blue Collar Active Mortality Table

Actuarial assumptions are based upon the most recent experience study, which covered the three-year period ending June 30, 2019. The experience study report is dated May 13, 2019.

Long-Term Expected Return on Plan Assets. The long-term expected rate of return on pension plan investments was determined using a lognormal distribution analysis in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target

asset allocation and best estimates of geometric real rates of return for each major asset class used in the June 30, 2019 experience study, are summarized in the following table:

Asset Class	Long-Term	
	Real Rate of Return	Target Allocation
U.S. Large Cap Equity	4.7 %	34.0 %
U.S. Small Cap Equity	5.8	6.0
Int's Developed Equity	6.5	23.0
Emerging Market Equity	8.5	5.0
Core Fixed Income	0.5	25.0
Long Term Treasuries	0.0	3.5
US TIPS	0.3	<u>3.5</u>
Total		<u>100.0 %</u>

Single Discount Rate. The discount rate used to measure the total pension liability is 6.5% for 2020 and 7.0% for 2019. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and the employees will be made at the current contribution rate as set out in state statute. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate determined does not use a municipal bond rate.

Sensitivity of the Authority's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate. The following presents the Authority's proportionate share of the net pension liability (asset) calculated using the discount rate of 7%, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6%) or 1-percentage-point higher (8%) than the current rate:

	2020		
	1% Decrease to Discount Rate (5.5%)	Current Discount Rate (6.5%)	1% Increase To Discount Rate (7.5%)
Proportionate share of the net pension liability (asset)	\$ <u>46,785,500</u>	\$ <u>19,877,360</u>	\$ <u>(2,865,544)</u>
	2019		
	1% Decrease to Discount Rate (6%)	Current Discount Rate (7%)	1% Increase To Discount Rate (8%)
Proportionate share of the net pension liability (asset)	\$ <u>28,634,528</u>	\$ <u>3,166,965</u>	\$ <u>(18,424,618)</u>

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in separately issued financial statements available at www.opers.ok.gov.

Payables to the Pension Plan

On December 31, 2020 and 2019, the Authority has outstanding payables to OPERS of \$571,690 and \$593,105, respectively, related to December 2020 and 2019 employer, employee, and voluntary contributions, which are payable in the following month. These amounts are included in accounts payable on the Statements of Net Position.

Oklahoma Law Enforcement Retirement Plan

General Information about the Pension Plan

Plan Description. Legislation passed during 2003 mandated that any lake patrolmen and dispatchers hired on or after July 1, 2003, shall participate as members of the OLERS Plan, a cost-sharing multiple-employer public employee-defined benefit retirement plan administered by the Oklahoma Law Enforcement Retirement System (OLERS), a component unit of the State. The OLERS Plan provides retirement, disability, and death benefits to its members and beneficiaries, primarily state employees providing law enforcement. The benefits provided are established and may be amended by the legislature of the State. Three of the Authority's patrolmen elected to transfer from the OPERS Plan to the OLERS Plan under Oklahoma Statutes, Title 47, Section 2-315, which provided for Authority lake patrolmen and dispatchers as of June 30, 2003, to make an irrevocable written election by January 1, 2004, to either pay the difference between the amount transferred between the plans or receive eligible prorated service credit as defined in statute. Oklahoma Statutes, Title 47, Sections 2-300, *et seq.*, established the Oklahoma Law Enforcement Retirement Board to administer this retirement system.

SB 1388, as codified in Oklahoma Statutes, Title 47, Sections 902, *et seq.*, placed all GRDA public safety officers hired after July 1, 2016, under the OPERS plan as hazardous duty employees.

The System issues a publicly available annual financial report that includes financial and required supplementary information for OLERS. That annual report may be obtained online at www.olders.state.ok.us, by writing to OLERS, 421 NW 13th St, Suite 100, Oklahoma City, OK 73103 or by calling 1-877-213-0856.

Vesting. OLERS requires ten years of credited service to be eligible to vest.

Benefits Provided. Employees can begin receiving full, unreduced retirement benefits after twenty years of service or at the age of 62 with ten full years of full-time equivalent employment.

The benefit on or after normal retirement is 2.5% of the greater of final average salary or the salary paid to active employees as described under "salary considered" multiplied by the years and completed months of credited service. There is no maximum service.

Contributions. System members and the Authority are required to contribute to the OLERS Plan at a rate set by statute. These contributions are established and may be amended by the legislature of the State. Each member participates based on gross salary earned (excluding overtime). The Authority's patrolmen and dispatchers participating in the OLERS Plan contributed 8.0%, and the Authority contributed 10% of total base salary through October 2012. Beginning November 2012, the Authority contribution rates increased to 11% of total base salary. Additional funds are also provided by the State of Oklahoma as summarized in the table below. Non-employer contributions are recorded as non-operating revenue in the Statements of Revenues, Expenses, and Changes in Net Position.

During the reporting period for 2020 and 2019, the OLERS recognized \$147,637 and \$142,911 in contributions from the Authority, respectively.

Contribution rates as of December 31, 2020 and 2019, are as follows:

Category	Contribution Rate
State	License Agency Fees equal to 1.2% of Driver's License Taxes, plus 5% of Insurance Premium Tax
Agency	10% of actual base salary until October 31, 2012, and 11% of actual base salary as of November 1, 2012
Member	8% of paid salary. Accumulated contributions after tax up to December 31, 1989, and before-tax after December 31, 1989

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Plan and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms, investments are reported at fair value.

On December 31, 2020, the Authority reported a liability of \$3,314,998 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2020, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2020. The Authority's proportion of the net pension liability was based on the Authority's share of contributions to the pension plan relative to the contributions of all participating employers. On June 30, 2020, the Authority's proportion was 1.5344% which is a 2.972% decrease from the prior year. For the year ended December 31, 2020, the Authority recognized pension expense of \$1,148,296.

On June 30, 2019, the Authority's proportion was 1.5814%. For the year ended December 31, 2019, the Authority reported a liability of \$2,296,870 and recognized pension expense of \$984,596.

At December 31, 2019, the Authority reported a liability of \$2,296,870 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2019. The Authority's proportion of the net pension liability was based on the Authority's share of contributions to the pension plan relative to the contributions of all participating employers. At June 30, 2019, the Authority's proportion was 1.5814% which is a 7.57% increase from the prior year. For the year ended December 31, 2019, the Authority recognized pension expense of \$984,596.

On December 31, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	OLERS Plan 2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 274,029	\$ 52,143
Changes in assumptions	4,563	-
Net differences between projected and actual earnings on pension plan investments	887,676	-
Employer contributions subsequent to the measurement date	72,569	-
Change in proportion	<u>110,814</u>	<u>47,912</u>
Total	<u>\$ 1,349,651</u>	<u>\$ 100,055</u>

On December 31, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	OLERS Plan 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 298,593	\$ 77,374
Changes in assumptions	7,902	-
Net differences between projected and actual earnings on pension plan investments	338,321	-
Employer contributions subsequent to the measurement date	71,499	-
Change in proportion	<u>226,967</u>	<u>8,977</u>
Total	<u>\$ 943,282</u>	<u>\$ 86,351</u>

The amounts reported as deferred outflows related to employer contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the subsequent year. Other amounts reported as

deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

OLERS Plan	
Year Ended December 31	Net Pension Expenses
2021	203,666
2022	334,999
2023	377,248
2024	254,307
2025	6,807
	<u>\$ 1,177,027</u>

Actuarial Assumptions. The total pension liability in the July 1, 2020, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2020	2019
Actuarial valuation date:	July 1, 2020	July 1, 2019
Measurement date of net pension liability:	June 30, 2020	June 30, 2019
Actuarial cost method:	Entry age	Entry age
Asset valuation method for contributions:	Five-year moving average of expected and actual market values	Five-year moving average of expected and actual market values
Asset valuation method for assets under GASB 68:	Fair value of assets	Fair value of assets
Long-term expected rate of return:	7.5%	7.5%
Discount rate:	7.5%	7.5%
Salary increases:		
Inflation:	2.75%	2.75%
Seniority/merit:	3.5% – 9.75%, including inflation	3.5% – 9.75%, including inflation
Mortality:	RP-2014 Blue Collar Healthy Employees with Generational Projection using Scale MP-2016	RP-2014 Blue Collar Healthy Employees with Generational Projection using Scale MP-2016

Actuarial assumptions used in the July 1, 2020 valuation are based upon an experience study conducted using experience from the five-year period ending June 30, 2016.

Long-Term Expected Return on Plan Assets. The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) were developed for each major class. These ranges were combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentages and adding expected inflation.

The assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

The target asset allocation and best estimates of arithmetic real rates of return for each major asset class, as provided by the System's investment consultant, are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	Target Allocation
Large Cap Equity	9.89 %	20 %
Small Cap Equity	11.18	10
Long/Short Equity	8.21	10
International	10.89	10
Emerging Market	12.23	5
Private Equity	13.17	5
Fixed Income	16.65	30
Real Assets	20.46	<u>10</u>
Total		<u>100 %</u>

Single Discount Rate. A single discount rate of 7.5% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.5% for both the June 30, 2020 and June 30, 2019 measurement dates. A municipal bond rate was not used in determining the discount rate.

The projection of cash flows used to determine the discount rate assumed that plan contributions from members, state agencies, insurance premium taxes, and other state sources would be made at the current contribution rates set out in state statute.

Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Authority's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate. The following presents the Authority's proportionate share of the net pension liability (asset) calculated using the discount rate of 7.5%, as well as what the Authority's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) than the current rate:

	2020		
	1% Decrease to Discount Rate (6.5%)	Current Discount Rate (7.5%)	1% Increase To Discount Rate (8.5%)
Proportionate share of the net pension liability (asset)	<u>\$ 5,573,051</u>	<u>\$ 3,314,998</u>	<u>\$ 1,461,075</u>
	2019		
	1% Decrease to Discount Rate (6.5%)	Current Discount Rate (7.5%)	1% Increase To Discount Rate (8.5%)
Proportionate share of the net pension liability (asset)	<u>\$ 4,546,308</u>	<u>\$ 2,296,870</u>	<u>\$ 450,794</u>

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in separately issued financial statements available at www.olders.state.ok.us.

Payables to the Pension Plan

On December 31, 2020 and 2019, the Authority has outstanding payables to OLEERS of \$21,310 and \$21,057, respectively, related to December 2020 and 2019, employer, employee, and voluntary contributions, which are payable in the following month. These amounts are included in accounts payable on the Statements of Net Position.

Oklahoma Public Employees Retirement Defined Contribution Plan

In 2014, the Oklahoma Legislature enacted legislation in HB 2630 requiring a Defined Contribution System be established by the OPERS for most state employees first employed by a participating State employer on or after November 1, 2015. This bill is codified in Oklahoma Statutes as Title 74, Section 935.1, *et seq.* Employees of the Authority who first became employees on or after November 1, 2015, and have no prior participation in OPERS must participate in the mandatory Defined Contribution Plan created in accordance with Internal Revenue Code Section 401(a) and 457(b) and Title 590, Chapter 40 of the Oklahoma Administrative Code. The Defined Contribution Plan is known as Pathfinder. Pathfinder and its related Trust(s) are intended to meet the requirements of the Internal Revenue Code. Pathfinder is administered by the OPERS.

Contribution rates are established by Oklahoma Statute and may be amended by the Oklahoma Legislature. For 2015, the initial period of implementation, employees must make mandatory employee contributions of 4.5% of pretax salary to the 401(a) plan and may make additional voluntary contributions to the 457(b) plan, subject to the maximum deferral limit allowed under the Internal Revenue Code. Employees are vested 100% for all employee contributions. The Authority must make mandatory contributions of 6% of the employee's pretax salary and 7% if the employee elects to participate in the 457(b) plan. Employees become vested for the employer contributions based on an established vesting schedule. The amount of the Authority's contributions for Pathfinder for the year ended December 31, 2020 and 2019, was approximately \$551,858 and \$407,569, respectively.

Additionally, in order to reduce the liabilities of the defined contribution plan, the Authority is required to contribute the difference between the established 16.5% defined benefit employer contribution rate and the amount required to match the participating employees' contribution in the defined contribution plan. The amount contributed by the Authority for the year ended December 31, 2020 and 2019, to meet this requirement is \$785,004 and \$581,604, respectively. The Authority had outstanding payables to OPERS for the defined benefit plan for the year ended December 31, 2020 and 2019, of \$94,840 and \$75,475, respectively, which were payable in the following month.

Oklahoma State Employees Deferred Compensation Plan

Plan Description. Employees of the Authority may also participate in the Oklahoma State Employees Deferred Compensation Plan (the "State Plan"), a voluntary deferred compensation plan administered by OPERS. The State Plan is a defined contribution plan available to all Authority employees, which permits participants to defer receipt of a portion of their salary until future years as authorized by Section 457 of the Internal Revenue Code and in accordance with the provisions of Oklahoma Statutes, Title 74, Sections 1701, *et seq.* The State Plan is established by and may be amended by the Legislature of the State. Oklahoma Statutes assign the authority for management and operation of the State Plan to the Board of Trustees of the OPERS. The minimum amount allowable to be deferred under the State Plan is \$25 per month. Under state law, each employee is eligible to receive a \$25 monthly matching contribution from the Authority to be deposited in a 401(a) retirement account. Employee contributions to the Plan totaled \$1,055,713 and \$1,007,516 for the years ended December 31, 2020 and 2019, respectively. The Authority paid matching contributions and administrative fees of \$135,029 and \$138,919 for the years ended December 31, 2020 and 2019, respectively.

GRDA Postemployment Healthcare Plan

Plan Description. GRDA Postemployment Healthcare Plan is a single-employer defined benefit healthcare plan administered by the Authority. GRDA Postemployment Healthcare Plan provides medical and dental insurance benefits to eligible retirees. In November 2007, the Authority's Board of Directors authorized the Authority to subsidize \$200 per month for eligible retirees, effective January 1, 2008. This stipend is provided for life to employees hired prior to November 1, 2015. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB 75. The Plan does not issue a stand-alone financial report.

Benefits Provided. The OPEB plan provides for employee and dependent healthcare coverage from the date of retirement to age 65, provided the participant was covered by the plan before retiring. The participant can elect to enroll in spousal coverage. Surviving spouses may continue in the plan until age 65. Spouses do not receive the \$200 per month subsidy.

Employees Covered by the Plan: The following table details the Authority's number of employees covered by the benefit terms:

Participant Data	December 31, 2020	December 31, 2019
Active participants:		
Employees hired prior to 11/01/2015 and eligible for \$200 subsidy	460	460
Employees hired 11/01/2015 or later and not eligible for \$200 subsidy	<u>88</u>	<u>63</u>
Total active participants	548	523
Inactive participants entitled to but not yet receiving benefits		
	0	0
Inactive participants receiving benefits:		
Retirees	274	258
Covered Spouses (below age 65)	<u>18</u>	<u>26</u>
Total inactive participants receiving benefits	292	284
Total Participants	<u>840</u>	<u>807</u>

Funding Policy. The contributions of plan members and the Authority are established and may be amended by the Board of Directors within the limits of Oklahoma statutes. The contribution is based on estimated pay-as-you-go financing requirements. For the years ended December 31, 2020 and 2019, the Authority contributed \$665,522 and \$655,970, respectively, to the plan, which consisted entirely of current premiums and included no additional contribution to prefund benefits.

Actuarial Methods and Assumption. Projections of benefits for financial reporting purposes are based on the benefits provided under the terms of the substantive plan (the plan as understood by the employer and the plan members) at the time of each valuation and the historical pattern of sharing the benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The total OPEB liability in the January 1, 2020 actuarial valuation was determined using the following assumptions:

	2020	2019
Actuarial valuation date	January 1, 2020	January 1, 2019
Inflation	2.10%	2.10%
Discount rate (from the Bond Buyer GO-20 Index)	2.74%	4.10%
Salary increases	Variable from 9.50% to 3.50% based on age and service group	Variable from 9.50% to 3.50% based on age and service group
Healthcare cost trend rates	2020-2021 at 5.80% increasing .5% to 2022 then, decreasing by .1% each year to 2024, then decreasing by .3 to 2025 to an ultimate rate of 5.3% for 2026 and beyond	2018-2019 at 6.70% decreasing .3% each year to 2021 then decrease by .2% to 2024 to an ultimate rate of 4.6% for 2025 and beyond
Actuarial cost method	Entry Age Normal	Entry Age Normal
Mortality	Pub-2010 Public Retirement Plans General Mortality Table weighted by Headcount projected by MP-2019 as of January 1, 2020	Pub-2010 Public Retirement Plans General Mortality Table weighted by Headcount projected by MP-2018 as of January 1, 2019

Changes in the Total OPEB Liability. Changes of assumptions and other inputs reflect a change in discount rate from 4.10% in 2019 to 2.74% in 2020. Changes in the Total OPEB Liability for the year ended December 31, 2020:

Changes in the Total OPEB Liability	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at December 31, 2019	\$ 16,980,723	\$ -	\$ 16,980,723
Changes for the Year			
Service Cost	564,096	-	564,096
Interest on Total OPEB Liability	685,406	-	685,406
Difference between expected and actual experience	435,412	-	435,412
Changes in assumptions	1,790,433	-	1,790,433
Employer Contributions	-	994,184	(994,184)
Benefit payments, including employee refunds	(994,184)	(994,184)	-
Net changes	<u>2,481,163</u>	<u>-</u>	<u>2,481,163</u>

For the year ended December 31, 2019:

Changes in the Total OPEB Liability	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at December 31, 2018	\$ 17,668,568	\$ -	\$ 17,668,568
Changes for the Year			
Service Cost	548,426	-	548,426
Interest on Total OPEB Liability	611,515	-	611,515
Difference between expected and actual experience	66,460	-	66,460
Changes in assumptions	(1,025,961)	-	(1,025,961)
Employer Contributions		888,285	(888,285)
Benefit payments, including employee refunds	(888,285)	(888,285)	-
Net changes	(687,845)	-	(687,845)
Balance at December 31, 2019	<u>\$ 16,980,723</u>	<u>\$ -</u>	<u>\$ 16,980,723</u>

Sensitivity of the Total OPEB liability to changes in the discount rate. The following presents the Authority's total OPEB liability calculated using the 2020 discount rate of 2.74%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (1.74%) or 1-percentage-point higher (3.74%) than the current rate:

	2020		
	1% Decrease to Discount Rate (1.74%)	Current Discount Rate (2.74%)	1% Increase To Discount Rate (3.74%)
Total OPEB liability	<u>\$ 21,511,666</u>	<u>\$ 19,461,886</u>	<u>\$ 17,704,123</u>

The following presents the Authority's total OPEB liability calculated using the 2019 discount rate of 4.10%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.10%) or 1-percentage-point higher (4.10%) than the current rate:

	2019		
	1% Decrease to Discount Rate (3.10%)	Current Discount Rate (4.10%)	1% Increase To Discount Rate (5.10%)
Total OPEB liability	<u>\$ 18,587,515</u>	<u>\$ 16,980,723</u>	<u>\$ 15,585,778</u>

Sensitivity of the Total OPEB liability to changes in the healthcare cost trend rate. The following presents the Authority's total OPEB liability calculated using the 2020 healthcare cost trend rate of 5.80%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (4.80% decreasing to 4.30%) or 1-percentage-point higher (6.80% decreasing to 6.30%) than the current rate:

	2020		
	1% Decrease to Healthcare Cost Trend Rate (4.8% decreasing to 4.3%)	Current Healthcare Cost Trend Rate (5.8% decreasing to 5.3%)	1% Increase to Healthcare Cost Trend Rate (6.8% decreasing to 6.3%)
Total OPEB liability	\$ 18,927,636	\$ 19,461,886	\$ 20,091,220

The following presents the Authority's total OPEB liability calculated using the 2019 healthcare cost trend rate of 6.70%, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.70% decreasing to 3.60%) or 1-percentage-point higher (7.70% decreasing to 5.60%) than the current rate:

	2019		
	1% Decrease to Healthcare Cost Trend Rate (5.7% decreasing to 3.6%)	Current Healthcare Cost Trend Rate (6.7% decreasing to 4.6%)	1% Increase to Healthcare Cost Trend Rate (7.7% decreasing to 5.6%)
Total OPEB liability	\$ 16,493,590	\$ 16,980,723	\$ 17,544,838

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB. For the year ended December 31, 2020 the Authority recognized OPEB expense of \$1,597,163. For the year ended December 31, 2019 the Authority recognized OPEB expense of \$1,077,071. The following table indicates the components of the recognized OPEB expense:

Components of OPEB Expense	2020	2019
Service Cost	\$ 564,096	\$ 548,426
Interest on Total OPEB Liability - over measurement period	685,406	611,515
Recognition of Experience Changes	96,920	12,701
Recognition of Assumption Changes	250,741	(95,571)
Total OPEB Expense recognized	<u>\$ 1,597,163</u>	<u>\$ 1,077,071</u>

As of December 31, 2020, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	OPEB Plan--2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Summary of deferred outflows and inflows		
Differences between projected and actual experiences	\$ 392,251	\$ -
Changes of actuarial assumptions	1,685,309	633,829
Employer contributions - subsequent to measurement date	<u>1,331,270</u>	<u>-</u>
Total	<u>\$ 3,408,830</u>	<u>\$ 633,829</u>

As of December 31, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	OPEB Plan--2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Summary of deferred outflows and inflows		
Differences between projected and actual experiences	\$ 53,759	\$ -
Changes of actuarial assumptions	341,683	829,895
Employer contributions - subsequent to measurement date	<u>655,970</u>	<u>-</u>
Total	<u>\$ 1,051,412</u>	<u>\$ 829,895</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year ended December 31	OPEB Plan--2020	
	Net OPEB Expense	
2021	\$	347,661
2022		347,661
2023		287,364
2024		387,855
2025		<u>73,190</u>
	<u>\$</u>	<u>1,443,731</u>

8. OTHER RELATED-PARTY TRANSACTIONS

The primary organizations considered related parties are those municipal, industrial, electric cooperative and other governmental organizations or lake area organizations that have representatives serving on the Authority's Board of Directors. The primary transactions in the ordinary course of business with these related parties include sales of electrical power and transmission and memberships in related trade associations or organizations, or tourism and economic development activities associated with the management of the lakes, including commercial and private dock permit fees.

OG&E operates the Redbud facility under an operating agreement with the Authority and OMPA and allocates certain costs and expenses attributable to Redbud to the Authority and OMPA in accordance with their undivided ownership interests—see further discussion of Redbud facility in "Joint Ownership" in Note 1 to Financial Statements, Summary of Significant Accounting Policies.

9. COMMITMENTS AND CONTINGENCIES

In the normal course of business, the Authority makes and receives commitments for purchases of coal, natural gas, wind power, and long-term service agreements. In addition, in the normal course of business, the Authority enters into agreements, which commit the Authority to provide varying amounts of electric power to its customers. Management of the Authority does not believe the honoring of these commitments will have any material adverse effect on the Authority.

The Authority had contractual commitments as of December 31, 2020, for long-term service agreements at the Redbud facility for the maintenance of the gas and steam turbines of approximately \$49.1 million through the year 2028. The Authority had contractual commitments as of December 31, 2020, for natural gas transportation to the Redbud facility of approximately \$11.7 million through March 31, 2024.

The Authority had contractual commitments as of December 31, 2020, for long-term service agreements at the GREC 3 facility for the maintenance of the gas and steam turbines of approximately \$53.7 million through the year 2030. The Authority had contractual commitments as of December 31, 2020, for transportation of natural gas to the GREC 3 facility of approximately \$134.5 million through the March 31, 2046.

The Authority had contractual commitments as of December 31, 2020, for long-term wind power purchase agreements of approximately \$616.7 million through the year 2037 and for customer generation capacity agreements of approximately \$253.4 million through the year 2042.

The Authority is a defendant in a class action lawsuit in Ottawa County, Oklahoma, arising from a flood event in 2007. There are approximately 400 potential class members. Discovery is ongoing. Potential exposure related to this case cannot be projected by management of the Authority.

10. LANDFILL CLOSURE AND POSTCLOSURE COSTS

The Authority maintains a coal combustion residuals (CCR) landfill in Chouteau, Oklahoma. The Authority accounts for this CCR landfill in accordance with GASB Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Post closure Care Costs*. State and federal regulations will require the Authority to place a final cover on the CCR site when it discontinues depositing of CCR and to perform certain maintenance and monitoring functions at the site for thirty years after closure. Although closure and post closure costs will only be paid near or after the date of discontinuance of use of the landfill, GASB Statement No. 18 requires proprietary funds to report a portion of these costs as an operating expense in each period based on landfill capacity and utilization.

This CCR landfill has a total capacity of 5,131,024 cubic yards, of which 4,334,245 cubic yards have been used through December 31, 2020. The remaining useful life at December 31, 2020 was approximately 18 years.

The amount recorded as a liability for the closure and post closure costs, included in Other Noncurrent Liabilities at December 31, 2020 and 2019, was \$7,606,994 and \$7,141,741, respectively. These amounts are based on 89% landfill utilization as of December 31, 2020 and 2019. The Authority will recognize the remaining estimated cost of closure and post closure care, of approximately \$700,739, as the remaining estimated capacity is filled. Amounts are estimated using what it would cost to perform all closure and post closure care in 2020. Actual costs are subject to change resulting from inflation or deflation, changes in technology, or changes in applicable laws or regulations.

The Oklahoma Department of Environmental Quality (ODEQ) has certain closure and post closure care financial assurance requirements. Each year, an auditor performs procedures to ensure that the Authority meets these requirements.

11. RISK MANAGEMENT

Resolution No. 5107 requires the Authority to, in each case where it is obtainable at a reasonable rate and on reasonable terms, insure its facilities, maintain liability insurance, and bond certain officers and employees. In general, all insurance coverage, including property (all risk coverage, including earthquake and flood), equipment, aircraft, employment practices liability, directors and officers liability, excess liability (including an endorsement for certified "acts of terrorism" as defined in the Federal Terrorism Risk Insurance Act), is purchased from private insurance carriers through the State of Oklahoma Risk Management Department (State Risk Management) of the Office of Management and Enterprise Services. State Risk Management contracts with a third-party insurance broker for brokerage services and advice. The Authority also participates in the State of Oklahoma's Consolidated Workers' Compensation Program, a self-insured program operated by States Risk Management. A private insurance carrier provides excess insurance coverage for the Consolidated Workers' Compensation Program and a private company provides claims administration services. Settled claims have not exceeded commercial insurance coverage in any of the past three years.

Concentration of revenues from a single external customer increases credit and market concentration risks. The Authority had one customer that accounted for 23% of total operating revenues in 2020 and 17% in 2019.

In addition, the Authority is subject to generation supply and market price risks, which are continually evaluated as to level of risk and how to best mitigate exposure to loss. The Authority continued its hedging program throughout 2020, to hedge price and volatility risk relative to future natural gas commodity prices.

As of December 31, 2020 and 2019, the Authority had the following fair value balances and notional amounts of derivative instruments and the changes in fair value of such derivative instruments:

Business-Type Activities	Changes in Fair Value	Fair Value at December 31, 2020		
		Classification	Amount	Notional Amount (MMBTU's)
Cash flow hedges:				
Commodity forward (swap)	\$ 2,262,055	Derivative instruments	\$ (333,110)	5,010,000
Business-Type Activities	Changes in Fair Value	Fair Value at December 31, 2019		
		Classification	Amount	Notional Amount (MMBTU's)
Cash flow hedges:				
Commodity forward (swap)	\$ (3,295,555)	Derivative instruments	\$ (2,595,165)	10,275,000

The following table displays the objective and terms of the Authority's hedging derivative instruments outstanding on December 31, 2020, along with the credit rating of the associated counterparty.

Item	Type	Objective	Notional Amount (MMBTUs)	Effective Date	Maturity Date	Terms	Counterparty Credit Rating
A	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	1,825,000	12/29/20	11/26/21	Pay \$2.625/MMBTU; scheduled monthly settlements based on 5,000 MMBTUs/day and Henry Hub pricing point at settlement date	"BBB+"
B	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	912,500	12/29/20	11/26/21	Pay \$2.625/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"BBB+"
C	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	912,500	12/29/20	11/26/21	Pay \$2.850/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"BBB+"
D	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	912,500	12/29/20	11/26/21	Pay \$2.680/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"BBB+"
E	Commodity forward contract (swap)	Hedge of changes in cash flows due to market price fluctuations related to expected purchase of natural gas	912,500	12/29/20	11/26/21	Pay \$2.500/MMBTU; scheduled monthly settlements based on 2,500 MMBTUs/day and Henry Hub pricing point at settlement date	"BBB+"

Contracts are accounted for in accordance with GASB Statement No. 53, which addresses recognition, measurement, and disclosure related to derivative instruments with reporting required in the Statements of Net Position or recognized on the Statements of Revenues, Expenses, and Changes in Net Position, depending on effectiveness. Contracts are evaluated to determine whether they meet the definition of derivative instruments and, if so, whether they effectively hedge the expected change in cash flow associated with natural gas prices.

Effectiveness testing is performed at the end of each month using the consistent critical terms method and, as of December 31, 2020, the tests concluded that all of the Authority's derivative instruments are effective. If the derivative instrument(s) passes effectiveness testing, the change in fair value of the instrument(s) is deferred in the Statements of Net Position and then recorded as fuel expense in the Statements of Revenues, Expenses, and Changes in Net Position during the production cycle. If deemed to be ineffective, the change in fair value of the instrument(s) is immediately recognized in the Statements of Revenues, Expenses, and Changes in Net Position.

Credit Risk: The Authority is exposed to credit risk on hedging derivative instruments that are in asset positions. The aggregate fair value of hedging derivative instruments in asset positions, as of December 31, 2020, is \$70,428. This represents the maximum loss that would be recognized at the reporting date if the counterparty failed to perform as contracted. This maximum exposure is reduced by \$403,538 of liabilities included in netting arrangements with the Authority's counterparty. All of the Authority's hedging derivative instruments are held with a single counterparty, which has an S&P Long Term Issuer Credit Rating of "BBB+." Credit risk is mitigated using credit thresholds based on each party's credit rating. If either party exceeds their threshold, collateral can be demanded, net of the effect of applicable netting arrangements. Collateral can be posted in the form of cash or letters of credit. A monthly credit report is prepared by GRDA's Middle Office and is provided to the Authority's Risk Oversight Committee for monitoring of credit risk related to hedging derivatives.

Basis Risk: GRDA is exposed to basis risk on its commodity forward contracts because the expected commodity purchase will price based on a pricing point (Enable Gas or OneOK) that is different than the pricing point at which the forward contract is expected to settle (Henry Hub). GRDA is hedging the Henry Hub portion of the gas price only, not the basis for the individual pipeline(s).

Termination Risk: The Authority or its counterparty may terminate a derivative instrument if the other party fails to perform under the terms of the contract. Termination may also occur in the event of the following, as defined in the contract: illegality, force majeure event, tax event, tax event upon merger, or additional termination event. Additional termination event is defined in the contract as GRDA engaging in any transaction that does not have as its sole purpose to hedge against price risk for its use in its business of natural gas or is in any way intended to speculate on any commodity price. Termination risk is associated with all of the Authority's derivatives up to the fair value amounts.

12. SUBSEQUENT EVENT

Between February 4, 2021 and February 20, 2021, the GRDA service area experienced an extreme winter storm, due to a polar vortex. During this time, natural gas supply was dwindling, and unable to meet the demands. The reduced supply of natural gas was due to frozen gas wells and equipment, resulting from the extended, extreme temperatures. This limited the use of our GREC 3 combined cycle and the Redbud gas generation units. Wind generation was curtailed as well, due to the winter storms. The increased demand for energy due to the cold, along with the limited supply of generation across the balancing authority, resulted in an unprecedented surge in natural gas and energy prices. As of the current writing of this, the cost estimates for the event range from \$51.1 million up to \$153.7 million. This is an estimate, because the natural gas invoice amounts are unknown, as well as the resettlement amounts from the SPP. The anomalous fuel and purchased power expenses that GRDA experienced as a result of this event have been recorded as under recovered fuel cost, and will be recovered through the extraordinary power cost element in the PCA calculation. GRDA is continually monitoring its financial condition, seeking ways to minimize the impact to our customers, while maintaining healthy reserves. The SPP alert timeline of the event follows:

On February 4, 2021, the Southwest Power Pool (SPP) issued a cold weather alert to all grid operators within the SPP Balancing Authority's footprint. On February 8, 2021, the SPP issued a resource alert, expecting severe weather conditions, significant outages, wind uncertainty, and load forecast uncertainty. The SPP declared conservative operations on February 9, and committed the longer lead-time generating resources on February 11, for the period of February 13 to February 16. On February 14, GRDA made several requests of its customers to conserve power, as the direction of the SPP. It culminated in brief firm load power interruptions on February 15 and 16 for GRDA municipal customers. The SPP alert levels gradually dropped until normal operations were declared on February 20.

* * * * *

**REQUIRED SUPPLEMENTARY INFORMATION
(UNAUDITED)**

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (UNAUDITED)
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT PLAN

Fiscal Year Ending	Proportion of the Net Pension Liability	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
December 31, 2020	2.2276 %	\$ 19,874,205	\$ 34,801,153	57.11 %	91.59 %
December 31, 2019	2.3778	3,166,970	35,942,188	8.81	98.63
December 31, 2018	2.4118	5,138,160	37,965,024	13.53	97.96
December 31, 2017	2.3117	12,498,665	38,404,273	32.54	94.28
December 31, 2016	2.2462	21,890,211	38,995,445	56.14	89.48
December 31, 2015	2.1715	7,810,649	37,304,843	20.94	96.00

SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED)
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT PLAN

Fiscal Year Ending	Contractually Required Contributions	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
December 31, 2020	\$ 6,109,333	\$ 5,838,606	270,727	\$ 34,266,124	17.04 %
December 31, 2019	6,258,254	6,243,328	14,926	35,239,125	17.72
December 31, 2018	6,309,340	6,485,378	(297,914)	37,001,348	17.53
December 31, 2017	6,218,254	6,516,168	(297,914)	38,300,232	17.01
December 31, 2016	6,641,675	6,615,357	26,318	38,811,001	17.05
December 31, 2015	6,333,952	6,343,582	(9,630)	38,557,227	16.45

The amounts determined for each fiscal year were determined as of June 30 in the calendar year.

The Authority is required to present the last ten fiscal years of data; however, until a full ten-year trend of data is compiled, GASB 68 allows the presentation for those years for which information is available.

Changes in Benefit Terms

House Bill 3350 provided a one-time benefit increase as of July 1, 2020. Members who retired on or prior to July 1, 2015 received a 4.0% benefit increase. Members who retired between July 1, 2015 and July 1, 2018 received a 2.0% benefit increase. Members who retired after July 1, 2018 did not receive a benefit increase.

Changes in Assumptions are as follows:

	2020	2019	2018	2017	2016	2015
Long-term expected rate of return	6.50 %	7.00 %	7.00 %	7.00 %	7.25 %	7.50 %
Discount rate	6.50	7.00	7.00	7.00	7.25	7.50
Price inflation	2.50	2.75	2.75	2.75	3.00	3.00
Real wage growth	0.75	0.75	0.75	0.75	1.00	1.00

There were no other changes in assumptions.

GRAND RIVER DAM AUTHORITY
(A Component Unit of the State of Oklahoma)

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (UNAUDITED)
OKLAHOMA LAW ENFORCEMENT RETIREMENT PLAN

Fiscal Year Ending	Proportion of the Net Pension Liability	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
December 31, 2020	1.5344 %	\$ 3,314,998	\$ 1,342,159	246.99 %	82.29 %
December 31, 2019	1.5814	2,296,870	1,298,190	176.93	87.50
December 31, 2018	1.4701	1,574,732	1,222,118	128.85	90.31
December 31, 2017	1.4556	1,891,434	1,225,700	154.31	87.85
December 31, 2016	1.3370	1,631,598	1,234,942	132.12	81.88
December 31, 2015	0.8627	894,807	736,838	121.44	89.62

SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED)
OKLAHOMA LAW ENFORCEMENT RETIREMENT PLAN

Fiscal Year Ending	Contractually Required Contributions	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
December 31, 2020	\$ 145,820	\$ 147,637	(1,817)	\$ 1,351,889	10.92%
December 31, 2019	141,092	142,911	(1,819)	1,308,269	10.92
December 31, 2018	133,523	134,432	(909)	1,268,728	10.60
December 31, 2017	134,827	134,826	1.00	1,209,093	11.15
December 31, 2016	136,630	136,630	-	1,241,483	11.01
December 31, 2015	81,430	81,430	-	1,098,422	7.41

The amounts determined for each fiscal year were determined as of June 30 in the calendar year.

The Authority is required to present the last ten fiscal years of data; however, until a full ten-year trend of data is compiled, GASB 68 allows the presentation for those years for which information is available.

Changes in Benefit Terms.

House Bill 3350 provided a one-time benefit increase as of July 1, 2020. Member show retired on or prior to July 1, 2015 received a 4.0% benefit increase. Members who retired between July 1, 2015 and July 1, 2018 received a 2.0% benefit increase. Members who retired after July 1, 2018 did not receive a benefit increase.

There were no Changes in Assumptions for 2020 or 2019, but historical changes are as follows:

	2020	2019	2018	2017	2016	2015
Price inflation	2.75 %	2.75 %	2.75 %	2.75 %	3.00 %	3.00 %

(A Component Unit of the State of Oklahoma)

**SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS (UNAUDITED)
OTHER POSTEMPLOYMENT BENEFITS PLAN**

	<u>2020</u>	<u>2019</u>
Beginning Balance	\$ 16,980,723	\$ 17,668,568
Service Cost	564,096	548,426
Interest on Total OPEB Liability	685,406	611,515
Difference between expected and actual experience	435,412	66,460
Changes in assumptions	1,790,433	(1,025,961)
Benefit payments, including employee refunds	<u>(994,184)</u>	<u>(888,285)</u>
Net changes	2,481,163	(687,845)
Ending Balance	<u>\$ 19,461,886</u>	<u>\$ 16,980,723</u>
Ratios		
Covered-employee payroll	\$ 34,266,124	\$ 35,239,125
Total OPEB Liability as a percentage of covered-employee payroll	56.80%	48.19%

The Authority is required to present the last ten fiscal years of data; however, until a full ten-year trend of data is compiled, GASB 75 allows the presentation for those years for which information is available.

Changes in Benefit Terms. There were no changes of benefit terms in the Plan.

Changes in Assumptions: Two assumption changes were made for this valuation. The discount rate on the Bond Buyer GO 20-Bond Municipal Bond Index as of the newest Measurement date of January 1, 2020 is 2.74%. The January 1, 2019 discount rate was 4.10%. The mortality table was also updated to a new public sector mortality table (Pub 2010) using the MP-2018 projection scale.

2021 Worksheet for Calculating Closure and Post-closure Cost Estimates

All site data necessary to calculate estimates of closure and post-closure costs can be gathered by completing Table E.1. Data from Table E.1 should be inserted into Tables E.2 and F.1 to complete calculations.

Table E.1 Site Data

Facility Name: Grand River Dam Authority

Permit Number: 3549012

Description	Quantity	Units
Total Permitted Area	67	acres
Active Portion		
Composite Lined	-	acres
Soil Lined	47	acres
Area of Largest Cell/Phase Requiring Final Cap		
Composite Lined	-	acres
Soil Lined	47	acres
Perimeter Fencing	-	linear feet
Groundwater Monitoring Wells	93	VLF
Methane Gas Probes	NA	VLF
Terraces	NA	linear feet
Letdown channels	NA	linear feet
Perimeter drainage ditches	NA	linear feet
Average Daily Flow	8.17	tons/day
Landfill Disposal Cost	-	\$/ton

VLF = Vertical linear feet. The sum of the depths of all monitoring wells.

Table E.2 Closure Cost Estimate

Facility Name: Grand River Dam Authority

Permit Number: 3549012

	Task/Service	Quantity	Units	Multiplier ^a	Unit Cost ^b	Subtotal
1	Preliminary Site Work					
1.1	Conduct Site Evaluation	1	Lump sum	1	\$3,789.99	\$3,789.99
1.2	Dispose Final Wastes					
	Average Daily Flow	0.74	tons/day			
	Disposal Cost	0.74	tons/day	5 (5 days waste)	NA	NA
1.3	Remove Temporary Building(s)	1	lump sum	1	\$3,475.44	NA
1.4	Remove	1	lump	1	\$2,836.97	\$2,836.97

	Equipment		sum			
1.5	Repair/Replace Perimeter Fencing		linear feet	0.25	\$3.72	NA
1.6	Clean Leachate Line(s)	1	lump sum	1	\$1,716.59	NA
2	Monitoring Equipment					
2.1	Rework/Replace Monitoring Well(s)	93	VLF	0.25	\$79.69	\$1,852.79
2.2	Plug Abandoned Monitoring Well(s)	93	VLF	0.25	\$31.90	\$741.68
2.3	Rework/Replace Methane Probe(s)		VLF	0.25	\$68.83	NA
2.4	Plug Abandoned Methane Probe(s)		VLF	0.25	\$25.15	NA
2.5	Rework/Replace Remediation and/or Gas Control Equipment	1	lump sum	0.05	NA	NA
3	Construction					
3.1	Complete Site Grading to include on- and off-site borrow areas	67	acres	1	\$1,502.63	\$100,676.21
3.2	Construct Final Cap					
	Compacted On- site Clay Cap or	151,653	cubic yards	1	\$5.40	\$818,928.00
	Compacted Off- site Clay Cap or	-	cubic yards	1	\$8.77	NA
	Install Geosynthetic Clay Liner Cap	-	square feet	1	\$0.57	NA
3.3	Construct Landfill Gas Venting Layer					

	Place Sand or		acres	1	\$40,178.88	NA
	Install Net and Geotextile		square feet	1	\$0.39	NA
3.4	Install Passive Landfill Gas Vents		acres	1	\$962.54	NA
3.5	Install Flexible Membrane		square feet	1	\$0.44	NA
3.6	Drainage Layer					
	Place Sand or		acres	1	\$40,178.88	NA
	Install Net and Geonet		square feet	1	\$0.39	NA
3.7	Place On-site Topsoil	75,827	cubic yards	1	\$2.32	\$175,917.87
	Place Off-site Topsoil	-	cubic yards	1	\$18.57	NA
3.8	Establish vegetative cover, including on- and off-site borrow areas	67	acres	1	\$1,070.89	\$71,749.63
4	Drainage/erosion control					
4.1	Construct Terraces		linear feet	1	\$9.73	NA
4.2	Construct Letdown Channels		linear feet	1	\$106.38	NA
4.3	Clean Perimeter Drainage Ditches		linear feet	0.50	\$7.41	NA
5	Tasks Not Identified					-
5.1	Close Temporary Piezometers	335	VLF	1	\$25.15	\$8,425.25
6	Subtotal					\$1,184,918.38
7	Administrative Services	1	lump sum	0.10		\$118,491.84
8	Technical and Professional Services	1	lump sum	0.12		\$142,190.21
9	Closure Contingency	1	lump sum	0.10		\$118,491.84
10	Total Final Closure					\$1,564,092.27

- a. Multipliers are determined from the *Solid Waste Financial Assurance Program Report*, December 22, 2000.
- b. Unit costs include a 1.21% inflationary adjustment for 2021.
- c. New facilities: Insert the value for "W" in OAC 252:517-17-8(2). Existing facilities: Insert reported annual tonnage for the previous year, divided by 312 operating days per year (52 weeks per year x 6 operating days per week).
- d. Insert number of tons/day from above.
- e. Insert landfill disposal cost per ton of waste (\$/ton).
- f. Input capital cost for gas control/remediation equipment, if installed at the site.
- g. Input subtotal from line 6.
- h. Add rows 6 through 9.

Table F.1 Post-closure Cost Estimate

Facility Name: Grand River Dam Authority

Permit Number: 3549012

Task/Service		Quantity	Units	Multiplier ^a	Unit Cost ^b	Subtotal
1	Site maintenance					
1.1	Site Inspections	4	per year	30	\$689.44	\$82,732.80
1.2	General Maintenance	1	per year	30	\$2,066.99	\$62,009.70
1.3	Remediation and/or Gas Control Equipment	1	lump sum	0.3 ^c	NA	NA
2	Monitoring equipment					
2.1	Rework/Replace Monitoring Well(s)	93	VLF	0.25	\$79.69	\$1,852.79
2.2	Plug Abandoned Monitoring Well(s)	93	VLF	0.25	\$31.90	\$741.68
2.3	Final Plugging of Monitoring Wells	93	VLF	1	\$31.90	\$2,966.70
2.4	Rework/Replace Methane Probe(s)		VLF	0.25	\$68.83	NA
2.5	Plug Abandoned Probe(s)		VLF	0.25	\$25.15	NA
2.6	Final Plugging of Methane Probes		VLF	1	\$25.15	NA
2.7	Final Plugging of Piezometer(s)		VLF	1	\$25.15	NA
3	Sampling and analysis					
3.1	Groundwater Monitoring Wells	5	wells	60	\$743.41	\$223,023.00
3.2	Methane Gas Probes		probes	60	\$48.24	NA
3.3	Surface Water Monitoring Points		points	60	\$89.59	NA

3.4	Leachate		sample	60	\$144.37	NA
4	Final cover maintenance					
4.1	Mow and Fertilize Vegetative Cover	47	acres	30 yrs	\$228.08	\$321,592.80
4.2	Repair Erosion, Settlement, and Subsidence for On-site Soils	47	acres	60 yrs	\$3.31	\$9,334.20
	Repair Erosion, Settlement, and Subsidence for Off-site Soils		acres	30 yrs	\$19.78	NA
4.3	Reseed Vegetative Cover	47	acres	0.20	\$1,070.89	\$10,066.37
5	Leachate management					
5.1	Clean Leachate Line(s)	1	per year	30 (30 yrs)	\$1,767.92	NA
5.2	Maintain Leachate Collection System and Equipment	1	per year	30 (30 yrs)	\$2,746.53	NA
5.3	Collect, Treat, Transport, and Dispose of Leachate		gal/yr	30	\$0.35	NA
6	Tasks not identified					-
7	Subtotal					\$714,320.03
8	Administrative Services	1	lump sum	0.06		\$42,859.20
9	Technical and Professional Services	1	lump sum	0.07		\$50,002.40
10	Post-closure Contingency	1	lump sum	0.10		\$71,432.00
11	Total Post-closure					\$878,613.64

- a. Multipliers are determined from the *Solid Waste Financial Assurance Program Report*, Dec. 22, 2000.
- b. Unit costs include a 1.21% inflationary adjustment for 2021.
- c. 5% of equipment capital cost, maintenance performed once per 5 yrs for 30 years ($6 \times 0.05 = 0.30$)
- d. Input capital cost for gas control/remediation equipment, if installed at the site.
- e. If the approved groundwater monitoring plan requires monitoring for alternative constituents, unit costs shall be calculated in accordance with OAC 252:517-17-52(b) or (c).
- f. Input subtotal from line 7.
- g. Add lines 7 through 10.