

RE: ENTERPRISE FUNDS CASH RESERVE POLICY

Background:

Maintaining a healthy cash reserve balance is a vital component of the budgeting process. Having adequate reserves will better position Nixa to continue to provide reliable services, maintain financial stability, ensure stable rates for customers, and fund large unanticipated expenses such as storm damage. For your consideration is a Cash Reserve Policy establishing a methodology for calculating the minimum amount of cash reserves necessary for all three enterprise funds.

Analysis:

Utilizing a methodology for calculating the minimum amount of cash reserves will better position Nixa to be able to respond to the various needs of the utility. Having cash reserves is not just about responding to unforeseen events, although being able to fund unanticipated cost contingencies is a key component of a healthy cash reserve. Cash reserves are also important to provide adequate funds to pay expenses, fund capital improvements necessary to ensure system reliability, and pay debt service. Having a reserve policy that utilizes a calculation method to determine minimum reserves will ensure that adequate amounts are being maintained to respond to existing conditions, future needs, and unexpected events. This will help keep the utility healthy now and into the future.

Having a Cash Reserve Policy that provides a clear methodology for establishing the minimum amount of reserve for each fund will help justify cash reserves to customers. Rather than setting a fixed dollar amount, the policy establishes four to five major risk factors with calculation criteria for establishing the minimum cash reserves. The five risk factors include Operations & Maintenance, Electric Purchase Cost (Electric fund only), Historical investment in assets, Debt Service, and Five-year Capital Improvement Plan. It is important to note that the minimum reserve amounts established by the risk factors should be viewed "in total" rather than allocating a certain amount of money for each risk factor to ensure an adequate minimum reserve is maintained for the fund.

For demonstration purposes staff has included an example of how the policy will work by utilizing the 2023 budget to show how the policy will function using real world numbers. As shown in the example, the Cash Reserve Policy would establish the following cash reserves for each enterprise fund:

Electric:	\$4,457,260.70
Water:	\$2,248,023.80
Wastewater:	\$2,053,412.40

Calculations will be updated annually during the budget process ensuring that the minimum cash reserves on hand are reflective of the current conditions of the fund.

Recommendation:

Staff recommends adoption of the attached Cash Reserve Policy.

MEMO PREPARED BY:

Travis Cossey | Asst. Director Nixa Utilities & Public Works

417-725-2353

MINIMUM CASH RESERVE CALCULATION TABLE ELECTRIC FUND

Five Risk Factors to Consider	% Risk Allocated	Minimum Reserves
O&M Expenses (Less Power Cost)	12.3%	\$438,190.32
Power Costs	18.8%	\$1,793,984.20
Historical Investment in Assets	1%	\$210,575.36
Debt Service	28.3%	\$7,510.91
5-Year Capital Improvement Plan (CIP)	20%	\$2,007,000.00
Total Reserves		\$4,457,260.70

OPERATION AND MAINTENANCE ELECTRIC FUND

2023 O&M Excluding Power Purchase (\$14,053,855 – 10,500,000)	\$3,553,855
Factor (45 days/365 days = 12.3%)	12.3%
O&M Reserve	\$438,190.32

PURCHASE POWER COSTS

ELECTRIC FUND

Max Monthly Power Expense (Highest Month)	\$1,195,989.54
Factor to Convert 30 days into 45 days	1.5
PURCHASE POWER COST (Reserve Amount)	\$1,793,984.20
Total Yearly Power Costs	\$9,535,194.08
Percent of Yearly Power Costs	18.8%

HISTORICAL INVESTMENT IN ASSETS

ELECTRIC FUND

Total Historical Investment	\$21,057,536
Accumulated Depreciation	\$9,465,592
Percent of Total	44.9%
Factor	1%
Historical Investment Reserve	\$210,575.36

DEBT SERVICE ELECTRIC FUND

Type	Highest Payment	Annual Debt Service	
Vehicle Lease	\$7,510.91	\$26,503.00	
Total All Debt Payments		\$26,503.00	
Percent of Debt Allocated			28.3%
Debt Service Reserve			\$7,510.91

FIVE-YEAR CAPITAL IMPROVEMENT PLAN (CIP)

ELECTRIC FUND

	2023	2024	2025	2026	2027	TOTAL
Capital Expenditure	3,660,000	3,380,000	1,015,000	805,000	1,175,000	\$10,035,000
Cash Reserve %						20%
CIP Reserve Amount						\$2,007,000

MINIMUM CASH RESERVE CALCULATION TABLE WATER FUND

Five Risk Factors to Consider	% Risk Allocated	Minimum Reserves
O&M Expenses	12.3%	\$275,221.97
Historical Investment in Assets	1%	\$172,217.03
Debt Service	85.4%	\$341,062.00
5-Year Capital Improvement Plan (CIP)	20%	\$1,459,522.80
Total Reserves		\$2,248,023.80

OPERATION AND MAINTENANCE WATER FUND

2023 O&M Expense	\$2,237,577.00
Factor (45 days/365 days = 12.3%)	12.3%
O&M Reserve	\$275,221.97

HISTORICAL INVESTMENT IN ASSETS

WATER FUND

Total Historical Investment	\$17,221,703
Accumulated Depreciation	\$5,161,567
Percent of Total	29.9%
Factor	1%
Historical Investment Reserve	\$172,217.03

DEBT SERVICE WATER FUND

Type	Highest Payment	Annual Debt Service	
RDE Bond Series 2022A	\$341,062.00	\$395,488.00	
Vehicle Lease	\$0	\$3,778.00	
Total All Debt Payments		\$399,266.00	
Percent of Debt Allocated			85.4%
Debt Service Reserve			\$341,062.00

FIVE-YEAR CAPITAL IMPROVEMENT PLAN (CIP)

WATER FUND

	2023	2024	2025	2026	2027	TOTAL
Capital Expenditure	2,117,614	3,180,000	1,000,000	0	1,000,000	\$7,297,614
Cash Reserve %						20%
CIP Reserve Amount						\$1,459,522.80

MINIMUM CASH RESERVE CALCULATION TABLE WASTEWATER FUND

Five Risk Factors to Consider	% Risk Allocated	Minimum Reserves
O&M Expenses	12.3%	\$168,006.68
Historical Investment in Assets	1%	\$285,638.44
Debt Service	95.1%	\$404,294.50
5-Year Capital Improvement Plan (CIP)	20%	\$1,195,472.80
Total Reserves		\$2,053,412.40

OPERATION AND MAINTENANCE WASTEWATER FUND

2023 O&M Expense	\$1,365,908.00
Factor (45 days/365 days = 12.3%)	12.3%
O&M Reserve	\$168,006.68

HISTORICAL INVESTMENT IN ASSETS

WASTEWATER FUND

Total Historical Investment	\$28,563,844
Accumulated Depreciation	\$12,814,787
Percent of Total	44.9%
Factor	1%
Historical Investment Reserve	\$285,638.44

DEBT SERVICE WASTEWATER FUND

Type	Highest Payment	Annual Debt Service	
WW Treatment Plant SRF Series 2001	\$235,000.00	\$246,821.00	
WW Treatment Plant Series 2003 COP	\$122,000.00	\$122,000.00	
Combined W&WW System/Series 2013	\$40,450.00	\$40,450.00	
Vehicle Lease	\$6,844.50	\$15,538.41	
Total All Debt Payments		\$424,809.41	
Total Highest Yearly Payment	\$404,294.50		
Percent of Debt Allocated			95.1%
Debt Service Reserve			\$404,294.50

FIVE-YEAR CAPITAL IMPROVEMENT PLAN (CIP)

WASTEWATER FUND

	2023	2024	2025	2026	2027	TOTAL
Capital Expenditure	3,822,364	1,405,000	750,000	0	0	\$5,977,364
Cash Reserve %						20%
CIP Reserve Amount						\$1,195,472.80

RESOLUTION NO. 2024-51

A RESOLUTION OF THE COUNCIL OF THE CITY OF NIXA ADOPTING A CASH RESERVE POLICY FOR THE CITY'S UTILITIES.

WHEREAS maintain a healthy cash reserve balance is a vital component of the budgeting process; and

WHEREAS having an adequate funding reserve will better position the City to continue to provide reliable utility service, maintain financial stability, ensure stable rates for customers, and fund large unanticipated expenses; and

WHEREAS to that end, the Council desires to adopt a "Cash Reserve Policy" for the City's utilities.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NIXA, AS FOLLOWS, THAT:

SECTION 1: The City Council hereby adopts the "Cash Reserve Policy," attached hereto and incorporated herein by this reference as "Resolution Exhibit A."

SECTION 2: This Resolution shall be in full force and effect from and after its final passage by the City Council and after its approval by the Mayor, subject to the provisions of section 3.11(g) of the City Charter.

ADOPTED BY THE COUNCIL THIS 27th DAY OF AUGUST 2024.

ATTEST:

PRESIDING OFFICER

CITY CLERK

APPROVED BY THE MAYOR THIS _____ DAY OF AUGUST 2024.

ATTEST:

MAYOR

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY



CASH RESERVE POLICY

Purpose

In order to maintain stable rates, continue providing reliable service, help ensure financial stability and timely completion of capital improvements, and meet requirements for large, unexpected expenditures, Nixa Utilities hereby establishes this cash reserve policy. This policy establishes a methodology for calculating the minimum amount of cash to be budgeted within the three utility funds (Electric, Water, Wastewater), with the actual calculations to be updated annually during the budget process. Cash reserves established under this policy can only be utilized within the applicable fund for which the reserves are calculated. Actual cash reserves may vary substantially above the minimum and are dependent on the life cycle of assets, future capital plan, rate setting policies, and debt policies.

Methodology

Rather than setting a fixed dollar amount, this policy establishes a methodology for calculating the minimum reserve, based on certain assumptions related to the following five major risk factors:

1. Operation and Maintenance
2. Electric purchase costs (Electric fund only)
3. Historical investment in assets
4. Debt service
5. Five-year capital plan

Calculations performed for each of these risk factors will combine to form a total minimum cash reserve amount, to be updated annually. After this minimum is determined, management should consider the minimum "in total," rather than allocating a certain amount of money for each risk factor. For example, catastrophic events can occur, and the amount needed may far exceed the amount set aside under "Historical investment in assets." Each of the three utilities (electric, water, and wastewater) have their own fund and will be evaluated on its own financial basis as a standalone unit of Nixa Utilities and shall each follow the methods outlined below to determine the minimum cash reserve required per fund.

Calculations

1. **Operation and Maintenance:** The minimum reserve shall include 12.33% of annual operating expenses, excluding depreciation expense and purchased power costs.

The 12.33% allotment is derived by assuming a 45-day average working capital lag between billing and payment receipt from customers (45 days/365 days). This percentage will not vary from year-to-year.

2. **Purchase Power Costs (Electric Funds Only):** The minimum reserve shall include the maximum monthly Power Supply cost for the year, multiplied by 1.5 to convert to a 45-day average working capital lag.

The percentage allotment is determined by dividing the highest monthly power cost expense (converted to a 45-day lag) by the total power supply costs for the year.

3. **Historical Investment in Assets:** The minimum reserve shall include a range of 1-3% of the historical investment in assets, as recorded in the financial statements.

This component addresses the risk of a catastrophic event posed by the age of the system. It is determined by first dividing the accumulated depreciation by total historical asset investment (cost), to get a depreciation percentage. Then, based on where that percentage falls in the following risk table, assessing a percentage of 1.0 – 3.0 % (of total historical investment) to set aside in reserves.

Risk Table		
Depreciation Percent	0-49%	1.0%
Depreciation Percent	50-55%	2.0%
Depreciation Percent	Over 55%	3.0%

4. **Debt Service:** The minimum reserve shall include the largest monthly debt service payment required for the following year to ensure payment is available in reserves if needed.

The percentage allotment is determined by dividing the highest debt service payment by the total of all debt service payment for the year.

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5. **Five-year Capital Improvement Plan (CIP):** The minimum reserve shall include 20% (1/5th) of the five-year capital improvement program less any improvements funded through the issuance of bonds.

Reasonableness Test

The methodology outlined in this policy shall be used to calculate the minimum cash reserve. However, the calculations should also be checked for reasonableness by determining the number of days of available operations and maintenance cash-on-hand, including power costs and depreciation. To do so, the minimum cash reserve (total from all five calculations) should be divided by total expenses to yield a factor, which is then multiplied by 365 (days per year). The result should be at least 90 days.

Action/Restoration

Each year, the amount of cash in reserves should be equal and/or exceed the minimum cash reserve amount. If certain events occur that result in cash reserves falling below the minimum cash reserve levels averaged over a three-year period, the City Council should act to restore cash reserves to the minimum levels over the subsequent three years.

If the amount of cash in reserves falls below this three-year-rolling-average, the City Council shall take one or more actions, including but not limited to the following:

- Rate Adjustments
- Cost Reductions
- Issuance of bonds to fund capital improvement programs (The utility should strive to fund normal capital improvements through rates and cash generation and bond for extra-ordinary capital improvements)
- Modification of the assumptions used to determine the cash reserve levels.