Liquidity Estimates

Sunday, May 22      2:40-3:30

Jamie Nicholson, Finance Director, City of Pataskala, OH
Stefan Jaskulak, CFO and Director of Administrative Services, Midpeninsula Regional Open Space District, Los Altos, CA
Liquidity

• Focus on a comprehensive understanding of managing and estimating liquidity

• Overview of changes in public-sector practices and potential changes brought about by movement in interest rates

• Address changes in reporting requirements with particular focus on exposures to risk in holdings and investments and GFOA Best Practices

• Examples of how large and small organizations are managing short- and long-term liquid assets in the current environment will also be discussed
OVERVIEW

• Why Liquidity Management is Important

• How to Determine What’s Right For Your Jurisdiction

• Case Study: City of Los Angeles
  DeKalb County, GA
  Midpeninsula Regional Open Space District

• Case Study: Pataskala, OH

• Best Practices and Policies and Procedures
Why Liquidity Management is Important

• Pay the Bills
• Cash Flow Forecasting
  • GFOA BP: Cash Flow Forecasting in Treasury Operations
Definition

- Cash flow management is the art of successfully estimating the magnitude and timing of your agency’s cash flows.
- The key to good cash management is understanding the sources of your agency’s liquidity.
- The prerequisite to great cash management is experience.
- Cash flow forecasting is an art not a science.

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Objectives

- Identify cash drivers in your organization
- Apply ‘how to’ techniques for forecasting individual cash flow line items
- Validate cash flow forecast models with variance analysis
- Deal with one-time uncertain cash flows
What is a Cash Flow Forecast

- Projection of anticipated receipts
- Projection of anticipated disbursements
- Estimate of investable cash balances
  - Liquid funds
  - Core funds
Why Manage Cash Flow?

- Ensure liquidity of funds for daily outflows
- Optimize interest earning ability
- Avoid embarrassing O/D fees
- ID irregularities – errors – fraud
- Stay current on recs
Objectives Of Cash Flow Forecasting

The objective of cash flow forecasting

- Ensure that cash is available to meet current liquidity requirements
- Invest temporarily unneeded cash optimally to meet the agency’s long-term goals for asset growth and safety
- Remain as invested as possible while retaining cash balances sufficient to meet liquidity needs
Answer 3 Simple Questions

- How much cash is available?
- When will it become available?
- How long will it be available?
Why Prepare a Cash Flow Forecast

- Improves investment earnings
  - Allows for investment in longer term, generally higher returning securities
- Ensures liquidity for disbursements
  - Avoids forced sales of securities to meet cash needs
- Serves as an early warning system that the cash flow characteristics of an agency are changing
  - Identifies short-term cash deficits
- Warns of impending budget problems
- Enhances inter-departmental cooperation

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Types of Cash Flow Forecasts

- **Annual forecast**
  - Estimates monthly cash position
  - Determines cash available for investments of more than 30 days
  - Provides a useful monthly overview for investment decision-making
  - Prepared for this fiscal year and next one to three fiscal years

- **Monthly forecast**
  - Estimates weekly cash position
  - Determines cash available for investments of less than 30 days
  - Monitors accuracy of annual forecast

- **Weekly forecast**
  - Estimates daily cash position
  - Determines cash available for investments of less than 7 days
  - Monitors accuracy of monthly forecast

- **Project-based forecast**
  - Provides monthly data on status of capital projects
  - May require input from contractors or in-house project managers
  - Can be stand alone or be combined into consolidated cash forecast

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Determine the Appropriate Format

- **Resources available**
  - Staff
  - Time
  - Technology

- **Type and amounts of funds**
  - Predictable cash flows
  - Erratic cash flows
  - Liquidity considerations

- **Need for accurate information**

- **Desire to improve cash management practices**

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Constructing a Cash Forecast

- Historical data from general ledger
- Historical data from bank and pool statements
- Current year budget
- Capital project spending projections
- Schedule of investment maturities and coupon payments
Know What’s Coming Up Soon

○ Assumptions regarding how historical patterns will change due to current conditions
  – Labor negotiations
  – Changing benefit costs
  – Tax receipts

○ Non-recurrent cash flows
  – Large purchases
  – Debt—new issuance and principal payments
  – Legal settlements
Cash Flow Forecast -- Deficit

Balance ($000)

- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec

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How to Determine What’s Right For Your Jurisdiction

- Understanding Risks in a Changing Interest Rate Environment
  - GFOA BP: Managing Risk in Investment Portfolio
- Understanding Liquidity is One Leg of the Three Legged Stool
- Liquidity Range
- Liquidity Portfolio
  - Investment Strategies
  - GFOA BP: Diversification of Your Portfolio
- Liquidity Targets

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The Liquidity/Core Model

○ Based on the overall pool balance
  
  – What is the pool balance now?
  
  – Over the last few years, is it
    
    • Growing?
    
    • Shrinking?
    
    • Stable?
  
  – How much does the balance fluctuate during the year?
The Liquidity/Core Model

- The total portfolio is growing
- But the maximum value fluctuates over the course of the fiscal year
- The "Liquidity Portfolio" is established to meet cash needs
- The "Core" is what's always available for longer-term investments
Explicitly Distinguish Liquidity

Liquidity

Total Portfolio

Reserve
The City/County Balances

Town A Cash Balances

Town B Cash Balances
Determining Size and Characteristics Of Liquidity

- Based on
  - Six to twelve months projected net expenditures, or
  - One year's annual budgeted expenditures, or
  - Percent of total portfolio
  - With a "cushion" for the unknown

- These factors determine average maturity or duration of liquidity component, and allocation to different maturity points
  - All in local government investment pool
  - Laddered to match cash needs
  - Or other short-term investment strategies
The Core Component

- The Core Portfolio can be designed for long-term portfolio growth

- The expectation is that it will not be called upon to fund cash flow needs
The GFOA recommends:

1. Involve all operating departments.
2. Government goals should drive prioritization of expenditures.
3. Use historical data to measure activity of a cyclical nature.
4. Receipt forecasts should include expected inflows and investment maturities.
5. Disbursement forecasts should include regular expenditures such as payroll and recognize non-repetitive expenditures.
6. Use cash flow forecasts to recognize items and controls that affect cash position.
7. Forecasts should be made conservatively.
8. Forecasts should be updated regularly.
Liquidity & Investments

• Two sides of the same coin

• Having a good understanding of liquidity requirements provides a basis for investing available funds
  — Portfolio size: how much funds are available for investment?
  — Investment timing: when will funds be needed?
Investing Objectives

- **Continuous Investment Of All Assets And Cash**
  - Compounding

- **Short-term For Liquidity Purposes (1-6 Months)**
  - Matching near term liabilities to assure cash availability

- **Longer Term For Investment Income And Safety**
  - 6-12 months and longer
  - Matching longer term liabilities
  - Using core funds to enhance yields
How Do I Achieve Liquidity

- Create And Understand Your Cash Flow
- Invest To Known Liabilities
- Always Have A Small Cash Buffer For Emergencies or Unanticipated Expenditures
- Buy High Quality Securities
  - High quality assures a secondary market
  - More readily converted to cash

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Segmenting Portfolio

**Liquidity**
- **Liquidity Portfolio (<= 1 year)**
  - Meets specific liquidity needs
  - Invests in short-term securities
  - Average maturity short
  - Very low volatility
  - Cash flow matching
  - LGIPs, MMMFs and money market instruments

**Reserve**
- **Reserve Portfolio (> 1 year)**
  - Targeted to highest suitable duration
  - Longer-term securities
  - Normally not used for liquidity, but invested in highly marketable securities, in case
  - Greater volatility

Total Portfolio

**Government Finance Officers Association of the United States and Canada**
Term Structures

○ **Liquidity portfolio – typically 1 year and under**
  – Bank - demand deposit accounts & CDs
  – Local government investment pools
  – Money market mutual funds
  – Money market instruments – T-Bills, Agency Discount Notes, Commercial Paper, Bankers Acceptances

○ **Reserve portfolio – typically maximum 3-5 years**
  – Treasury notes and bonds
  – Agency bonds
  – Corporate bonds
  – Municipal bonds
Cash Instruments

- Local Government Investment Pools
- Money Market Mutual Funds
- Repurchase Agreements
- Money Market Instruments
- Discount Securities
- Treasuries
- Commercial Paper
- Certificates of Deposit
Local Government Investment

- Pooling Public Funds
  - State-operated pools
  - Intergovernmental pools (Joint Powers)

- Benefits
  - Professional Management
  - Instant Liquidity
  - Normally constant NAV (Net Asset Value) of $1.00
  - Economies of scale
  - Diversification
  - Services

- Enrollment
  - Prospectus
  - Agreement
  - Governing body approval
  - Procedures for deposits and withdrawals
Due Diligence of LGIPs

Sample of what to ask for

- A description of eligible investment securities, and a written statement of investment policy and objectives.
- A description of interest calculations and how it is distributed, and how gains and losses are treated.
- A description of how the securities are safeguarded (including the settlement processes), and how often the securities are priced and the program audited.
- A description of who may invest in the program, how often, what size deposit and withdrawal are allowed.
- A schedule for receiving statements and portfolio listings.
- Are reserves, retained earnings, etc. utilized by the pool/fund?
- A fee schedule, and when and how is it assessed.
- Is the pool/fund eligible for bond proceeds and/or will it accept such proceeds?
Money Market Mutual Funds

- **Investment Company Act of 1940: Rule 2a-7**
  - Governs credit quality, diversification, maturities, NAV $1.00*

- **Oversight SEC**

- **Professional administration & portfolio management**

- **Considerations**
  - ✓ Compliance
  - ✓ Capitalization
  - ✓ Rating
  - ✓ Services
  - ✓ Cutoff time
  - ✓ Fees
SEC Reforms Will Push Institutional Investors into Government Funds

- The SEC 2(a)7 fund changes will affect institutional “Prime” money market funds by October 2016.
- The biggest concerns to money fund investors are:
  - Floating net asset value (NAV)
  - Liquidity fees and redemption gates
- U.S. money funds balances are currently estimated at $900bn for government funds and $1.4tn for prime funds.
- A significant percentage of fund providers are expected to transition away from prime and into government funds. This suggests the demand for short government securities will rise significantly ... at the same time supply is falling.
Redemption Restrictions on Prime Funds

- **Liquidity Fees**
  - If the weekly liquid assets of a fund were to drop below 30%, a fund board may impose a fee of up to 2% on shareholder redemptions (if the fee is determined to be in the best interest of the fund).
  - If the weekly liquid assets of a fund were to drop below 10%, a fund board must impose a fee of up to 1% on shareholder redemptions (unless a fee is determined not in the best interest of the fund).

- **Redemption Gates**
  - A fund’s board may halt all redemptions for up to 10 consecutive days if weekly liquid assets fall below 30%.
Repurchase Agreements

- Overnight Repos
- Open Repos
- Term Repos
- Flex Repos

- Strengths
  - Robust market - $1.8 trillion
  - Flexibility
  - Higher yields
  - Diversification
  - Market tested contracts

- Risks
  - Counterparty failure
  - Collateral sufficiency
  - Collateral Type

- Risk Mitigation
  - Use of Master Repurchase Agreements
  - Effective credit review process
  - Collateral evaluation protocol
  - Bankruptcy remote collateral types

Entity | Counterparty
--- | ---
Open Repo (Day 1) | Money | Securities
Close Repo (Last Day) | Securities | Money

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Money Market Instruments

- Discount securities (no coupon)
  - Treasury bills
  - Agency discount notes
  - Commercial paper
  - Bankers Acceptances

- Certificates of deposit

- Treasury and Agency Notes/Bonds whose remaining maturity is 13 months or less
Discount Securities

(T-Bills, Agency Discount Notes, CP)

6 Month
0.29% Disc
0.295% BEY

$1,000,000

$1,459

$998,541
Treasury Bills

- Considered the “risk-free” investment
- Zero coupon; trade at discount to par
- Maturities of 1 year or less
  - 4-week; 3- & 6-month; 1-year; cash management
- Auctions
  - 3 & 6-month auctioned every Monday*
  - 4-week auctioned every Tuesday
  - 1-year auctioned every 4 weeks
  - Cash management bill auctioned as needed
- Settlement & maturities Thursdays*

*Unless a holiday, then next business day
Commercial Paper – Asset Backed

- Unsecured promissory note
- Maximum maturity 270 day (most 30 – 90 days)
- Discounted (most common) or coupon security
- Purchased direct or in secondary
- Credit considerations - ratings
  - Moody’s: P-1; S & P: A-1+; Fitch: F1+
- Illiquid – hold to maturity
- DTC settlement

- A type of CP where repayment is based on the cash flows of the underlying assets
- Special Purpose Entity (Conduit) – Created to house the assets and issue the commercial paper
- Enhancements
  - Liquidity facilities provided by third party financial institutions
  - Credit enhancement
  - Over collateralization
- Collapse of the ABCP market during the financial crisis

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Certificates of Deposit

- Restrictions on CDs - Public Depositories
  - In-state versus out-of-state
- Negotiable/Non-Negotiable
- Interest Calculations
  - 360 or 365 day years
  - Compounding
- Sold at Par or at a Discount
- FDIC Coverage
- Other methods to secure deposits
### LIQUIDITY SCHEDULE
December 31, 2013

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<th>Cumulative</th>
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<td>$531,291,150</td>
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**Pooled Investments Maturing:**

- **<30 days**: $660,250,563 → $1,191,541,713 (15.43%)
- **31 to 90 days**: $110,043,240 → $1,301,584,953 (16.85%)
- **91 to 180 days**: $122,685,432 → $1,424,270,385 (18.44%)
- **181 to 365 days**: $184,224,051 → $1,608,494,436 (20.82%)
- **1 to 2 years**: $1,976,372,550 → $3,584,866,986 (46.41%)
- **2 to 3 years**: $1,684,030,410 → $5,268,897,395 (68.21%)
- **3 to 4 years**: $1,464,118,889 → $6,733,016,284 (87.17%)
- **4 to 5 years**: $991,247,920 → $7,724,264,204 (100.00%)

**Total Cash and Pooled Investments**: $7,724,264,204
Case Studies

- City of Los Angeles
- DeKalb County
- Midpeninsula Regional Open Space District
- City of Pataskala, Ohio
City of Los Angeles

Daily Cash Flow Model

- Detailed in- and outflows
- By bank and by category
- Reconciled daily
- $7 billion investment program
- Distinction between Core and Liquid
## CASH FLOW FORECAST + ACTUAL

### July 2009 - December 2009

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<th>Thu</th>
<th>Fri</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
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### Wachovia

- **Aurora**: Wachovia x
- **Finance**: Wachovia x
- **Housing**: Wachovia x
- **Public Works**: Wachovia x
- **Property & Transportation**: Wachovia x
- **Current Liabilities**: Wachovia x
- **Current Liabilities & Departments**: Wachovia x
- **Property & Taxes**: Wachovia x
- **Other Revenues**: Wachovia x
- **Other Revenues & Non-Rec**: Wachovia x

### Wells Fargo & Company

- **Pension**: Wells Fargo x
- **Pension - Misc**: Wells Fargo x
- **Payrolls**: Wells Fargo x
- **Payrolls - Checks**: Wells Fargo x
- **Pensions**: Wells Fargo x
- **Pensions - Misc**: Wells Fargo x
- **Total Inflows**: Wells Fargo x

### Total Inflows

- **Total Inflows**: 508,121
- **76,371**
- **71,250**
- **49,028**
- **37,765**

### Total Outflows

- **Total Outflows**: 506,740
- **84,200**
- **39,000**
- **28,500**
- **32,865**

### INTERBANK TRANSFERS

- **From Wells Fargo to Wachovia**: From Wells Fargo to BofA
- **From Wachovia to BofA**: From BofA to Wachovia

### LEGACY BALANCE

- **Wachovia Ending Ledger Balance**: Wachovia x
- **Wells Fargo Ending Ledger Balance**: Wells Fargo x
- **Total Ending Ledger Balance**: 101,381
- **57,352**
- **93,552**
Monthly Cash Flow Model

- Fiscal year = Calendar year
- Split in 1/12 – level for each month
- No seasonality or adjustments
- TAN issued in spring
- Taxes received late fall
- No investments beyond LGIP
Midpeninsula Regional Open Space District

30 Year Forecast

• Updated regularly as new information becomes available
• Conservative growth/inflation
  • 4% tax revenue growth (historic is 6.6%)
  • 5.5% expense growth
• Goal: 30 year positive operating position
### MROSD 30 Year Cash Flow Projection (June FY16-45)

<table>
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<tr>
<th>Fiscal Year</th>
<th>Beginning Gen Cash</th>
<th>Tax Revenue</th>
<th>Other Revenue</th>
<th>Operating Revenues</th>
<th>Operating Expenses</th>
<th>Operating Expenses &gt; Tax Revenue</th>
<th>Other Revenue Growth</th>
<th>Operating Revenue Growth</th>
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**Notes:**
- Non-MAA CAPEX Base: $4.0 M
- 17-19 S&B Step-Up: add 21 employees
- 18-20 CAPEX Step-Up: $35M of new facilities
- FY14-15 non-MAA CAPEX: $17.55 M
- FY16-18 non-MAA CAPEX: $30.30 M
- FY19-20 non-MAA CAPEX: $40.46 M
- FY21-22 non-MAA CAPEX: $50.63 M
- FY23-24 non-MAA CAPEX: $60.80 M
- FY25-26 non-MAA CAPEX: $71.07 M
- FY27-28 non-MAA CAPEX: $81.34 M
- FY29-30 non-MAA CAPEX: $91.61 M
- Total non-MAA CAPEX: $205.14 M

**Other Key Figures:**
- Total Operating Expenses: $372.20 M
- Total Operating Revenue: $453.24 M
- Total Non-MAA Spending: $279.60 M
- Total Non-MAA CAPEX: $54.92 M
- Total MAA CAPEX: $151.12 M
City of Pataskala, Ohio
Liquidity Management Case Study

James M. Nicholson, Finance Director
City of Pataskala, Ohio
City Demographic Info

- Population = 15,092
- Area = 28 square miles
- Combined General Fund Budget = $7 million
- Employees = 50 full-time, 8 part-time
- General purpose government providing road maintenance, Police, parks, zoning/code enforcement. Fire protection provided by the West Licking Fire District.
- City operates a water and sanitary sewer system utility.
Existing Environment

- Historically, limited funds available for investment
- Overnight sweep used extensively
- Voters passed an income tax in mid-2010, resulting in improved funding
- Major multi-year investment in infrastructure improvements
- City investment policy initially implemented in 2007, however updated significantly in 2013 to accommodate:
  - Include legally permitted investments (ORC – CDs)
  - Require DVP (delivery versus payment) for trade settlement
  - Broker/dealer investment policy acknowledgement
Cash Flow Requirements Analysis

- Property tax settlements distributed by county treasurer in March and August.
- Income tax collections (with slight deviations) are generally distributed evenly throughout the year.
- Historical analysis of revenues, expenditures and fund balance:
  - Commingled portfolio vs fund balance requirements
  - Core vs liquidity
  - Active, inactive and permanent funds (ORC designation requirement)
  - Account for extraordinary revenues or expenditures
  - Include future forecast periods in the analysis
Monthly Revenue, Expenditure & Fund Balance - All Funds
January, 2012 through December, 2016

MILLIONS

Revenue
Expense
Fund Balance
12 per. Mov. Avg. (Fund Balance)
Revenue, Expenditure & Fund Balance - All Funds
2012 - 2020

MILLIONS
### CITY OF PATASKALA, OHIO
### FULL-YEAR FUND ACTIVITY AND BALANCE PROJECTIONS
### AS OF APRIL 30, 2016

<table>
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</thead>
<tbody>
<tr>
<td>101 - General Fund</td>
<td>$927,191.23</td>
<td>$1,276,973.00</td>
<td>$1,580,172.00</td>
<td>$97,895.42</td>
<td>$1,660,666.42</td>
<td>$809,659.81</td>
<td>$5,980.00</td>
<td>(1,795.49)</td>
<td>$1,610,123.02</td>
<td></td>
<td>$1,759,211.24</td>
<td>45.54%</td>
<td>$31,920.00</td>
</tr>
<tr>
<td>102 - Unassigned Funds</td>
<td>31,020.00</td>
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<tr>
<td>201 - Total General Funds</td>
<td>$927,191.23</td>
<td>$1,276,973.00</td>
<td>$1,580,172.00</td>
<td>$97,895.42</td>
<td>$1,660,666.42</td>
<td>$809,659.81</td>
<td>$5,980.00</td>
<td>(1,795.49)</td>
<td>$1,610,123.02</td>
<td></td>
<td>$1,759,211.24</td>
<td>45.54%</td>
<td>$31,920.00</td>
</tr>
</tbody>
</table>

### Special funds

<table>
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</thead>
<tbody>
<tr>
<td>201 - Street Fund</td>
<td>$2,132,092.00</td>
<td>$2,746,040.00</td>
<td>$2,976,959.00</td>
<td>$78,798.32</td>
<td>$2,958,472.02</td>
<td>$2,125,317.84</td>
<td>$384,000.00</td>
<td>(2,275.49)</td>
<td>$2,951,371.92</td>
<td>$30,160.00</td>
<td>$76,690.00</td>
<td>25.25%</td>
<td>$1,736,292.04</td>
</tr>
<tr>
<td>202 - Police Fund</td>
<td>$39,047.03</td>
<td>$52,081.20</td>
<td>$54,000.00</td>
<td>$9,000.00</td>
<td>$50,000.00</td>
<td>$30,000.00</td>
<td>$16,000.00</td>
<td></td>
<td>$46,000.00</td>
<td>$30,160.00</td>
<td></td>
<td>$76,690.00</td>
<td>25.25%</td>
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<tr>
<td>204 - Indent Direct Alcohol Treatment</td>
<td>$4,611.72</td>
<td>$4,611.72</td>
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<tr>
<td>205 - Law Enforcement Training &amp; Ed</td>
<td>$2,990.00</td>
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### Total Special Revenue

- **Total Special Revenue:** $4,032,923.67
- **Balance as % of Budget:** 60.24%

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</tr>
</thead>
<tbody>
<tr>
<td>401 - Debt Service Fund</td>
<td>$209,055.87</td>
<td>$631,940.00</td>
<td>$700,732.00</td>
<td>$11,804.00</td>
<td>$712,536.00</td>
<td>$124,162.67</td>
<td>$0.00</td>
<td></td>
<td>$124,162.67</td>
<td>$0.00</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>402 - Street Fund</td>
<td>$39,047.03</td>
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</tbody>
</table>

### Total Debt Service

- **Total Debt Service:** $235,722.96
- **Balance as % of Budget:** 6.00%
# City of Pataskala, Ohio

## Full-Year Fund Activity and Balance Projections

**As of April 30, 2016**

<table>
<thead>
<tr>
<th>Fund Number / Description</th>
<th>December 31, 2015 Total Cash Balance</th>
<th>FY 2016 Estimated Revenues</th>
<th>Total Expense Budget as of April 30, 2016</th>
<th>EOY Projected Fund Balances as of April 30, 2016</th>
<th>Balance as % of Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total General Funds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 - General Fund</td>
<td>$927,181.23</td>
<td>$1,478,973.00</td>
<td>$1,610,123.02</td>
<td>$796,031.21</td>
<td>49.44%</td>
</tr>
<tr>
<td>102 - Unclaimed Funds</td>
<td>31.92</td>
<td></td>
<td></td>
<td>31.92</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>Total General Funds</strong></td>
<td>$927,213.15</td>
<td>$1,478,973.00</td>
<td>$1,610,123.02</td>
<td>$796,063.13</td>
<td>49.44%</td>
</tr>
<tr>
<td>201 - Street Fund</td>
<td>$2,136,325.16</td>
<td>$2,494,640.00</td>
<td>$2,891,371.92</td>
<td>$1,739,593.24</td>
<td>60.16%</td>
</tr>
<tr>
<td>202 - State Highway</td>
<td>58,862.81</td>
<td>54,300.00</td>
<td>56,100.00</td>
<td>57,062.81</td>
<td>101.72%</td>
</tr>
<tr>
<td>203 - Ecological Preservation</td>
<td>1,000.00</td>
<td></td>
<td></td>
<td>1,000.00</td>
<td>100.00%</td>
</tr>
<tr>
<td>204 - Pataskala JEDD</td>
<td>1,284.65</td>
<td>500.00</td>
<td></td>
<td>1,784.65</td>
<td>100.00%</td>
</tr>
<tr>
<td>205 - Permissive License Tax</td>
<td>360,660.63</td>
<td>232,280.00</td>
<td>167,847.50</td>
<td>425,093.13</td>
<td>253.26%</td>
</tr>
<tr>
<td>206 - Recreation Fund</td>
<td>34,725.05</td>
<td>3,100.00</td>
<td>5,120.32</td>
<td>32,704.73</td>
<td>638.72%</td>
</tr>
<tr>
<td>207 - Park Use</td>
<td>69,837.30</td>
<td>15,200.00</td>
<td>46,500.00</td>
<td>38,537.30</td>
<td>82.88%</td>
</tr>
<tr>
<td>208 - Police Fund</td>
<td>1,278,597.58</td>
<td>2,741,484.00</td>
<td>2,766,350.44</td>
<td>1,253,731.14</td>
<td>45.32%</td>
</tr>
<tr>
<td>209 - Immobilization</td>
<td>490.00</td>
<td></td>
<td></td>
<td>490.00</td>
<td>100.00%</td>
</tr>
<tr>
<td>210 - Mayor’s Court Computer</td>
<td>58,268.51</td>
<td>13,000.00</td>
<td>41,500.00</td>
<td>29,768.51</td>
<td>71.73%</td>
</tr>
<tr>
<td>211 - Alcohol Enforcement &amp; Education</td>
<td>5,921.10</td>
<td></td>
<td></td>
<td>5,921.10</td>
<td>100.00%</td>
</tr>
<tr>
<td>212 - Law Enforcement Trust</td>
<td>9,647.96</td>
<td>2,500.00</td>
<td></td>
<td>12,147.96</td>
<td>100.00%</td>
</tr>
<tr>
<td>213 - Pataskala Mobile Home Park</td>
<td>4,461.07</td>
<td></td>
<td></td>
<td>4,461.07</td>
<td>100.00%</td>
</tr>
<tr>
<td>214 - FEMA Fund</td>
<td>9.00</td>
<td></td>
<td></td>
<td>9.00</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

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Government Finance Officers Association of the United States and Canada
Analysis Assumptions

- A portion of the portfolio is held in callable securities. The analysis did not assume that any securities were called before maturity (high likelihood of security calls).
- Assumed that revenue collection timing in 2017-2020 would match that of 2016.
- Factored in the March/August timing of nearly $1.0 million in property tax revenues.
- Assumed a 15% average (all funds) reserve ratio
  - Policy for General, Police and Street funds have a target 25-35% ratio, all other governmental funds are 5-15%.
Results of Analysis

- Core (inactive) funds reflect the first $1.5 million in funds.
- Interim (active) funds are excess above $1.5 million.
- Factoring an average 15% reserve ratio, 2016 liquidity ranges from a low of $2.1 million in Q1-16 to a high of $3.3 million in Q3-16.
  - The 2017-2020 liquidity forecast ranges from a high of $6.68 million in Q4-20, to a deficit of $700 thousand in Q4-17.
- Current portfolio is well-positioned for 2016, however calls in late-2016 and 2017 will need to be retained in liquid form (STAR Ohio or ICS sweep)
CONTACT INFORMATION:

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Finance Director

City of Pataskala,
621 W. Broad St, Suite 2B
Pataskala, Ohio 43062

(740) 964-6274
jnicholson@ci.pataskala.oh.us
Coming Full Circle

• Developing an Investment Policy
  • GFOA BP: Creating an Investment Policy
• Internal Policies and Procedures