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August 7, 2019

To: Sandy City Council

Subject: Capital Projects Funding in lieu of Lump Sum Tax Increase

Dear Council Member,

Please find attached an example of the effect of an incremental annual tax increase invested at a “riskless” interest rate to generate a return that meets the funding goal. This strategy reduces the overall property tax burden and smoothes out the annual property tax liability.

A portion of annual property tax revenue should be appropriated to fund all capital projects funds. If it is currently not the case, the replacement, maintenance, improvements or future acquisition of all depreciable assets with a useful life greater than two years should be fiscally provided for in a capital projects fund. Monies in these funds should be invested as allowed by law to generate a rate of return, thus reducing the overall property tax burden.

The State of Utah Uniform Accounting Manual for Cities at reference E.02, Investment of Public Funds (copy attached) mandates investments fundamental to fiscal policy. It states:

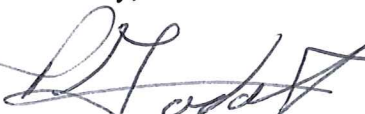
With the cost of providing public services increasing, it is imperative that local governmental officials invest available resources to the benefit of their governmental units. *Utah Code* Section 51-7, known as the Money Management Act, defines the criteria for investment of public funds (51-7-17) and the types of investments that may be made (51-7-11). A booklet containing these laws is available from the State Treasurer or the laws may be found in the *Utah Code*.
(Highlighted by author for effect.)

To fund long range, 5-10 years, a safe option would be investments in U.S. Treasury notes using a multi-maturity investment strategy to hedge against interest rate and market risk. Returns on U.S. Treasuries are essentially the “riskless” rate of return and if held to maturity, there is no market risk.

To assist Sandy City in the budgeting and investment process, it may be advantageous for the city to enter into an intergovernmental agreement with the University of Utah’s Departments of Economics and Finance. Their expertise would certainly compliment the city’s finance department.

Please consider implementing these solutions.

Sincerely,



Paul Godot

**Capital Projects Fund Funding Proposal
(in lieu of a lump sum tax increase)**

Year or Payment Number	Property Tax	Annual Property Tax Percent Increase	Increase in Property Tax	New Property Tax	Amount of Property Tax Invested	Semi-Annual Interest Rate	Semi-Annual Balance	Earned Annual Interest Rate	Annual Balance
1	\$1,000.00	0.0582070%	\$0.58	\$1,000.58	\$0.58	1.0000%	\$0.59	1.0000%	\$0.59
2	\$1,000.58	0.0582070%	\$0.58	\$1,001.16	\$1.76	1.0000%	\$1.78	1.0000%	\$1.79
3	\$1,001.16	0.0582070%	\$0.58	\$1,001.75	\$3.54	1.0000%	\$3.58	1.0000%	\$3.61
4	\$1,001.75	0.0582070%	\$0.58	\$1,002.33	\$5.94	1.0000%	\$6.00	1.0000%	\$6.06
5	\$1,002.33	0.0582070%	\$0.58	\$1,002.91	\$8.98	1.0000%	\$9.07	1.0000%	\$9.16
6	\$1,002.91	0.0582070%	\$0.58	\$1,003.50	\$12.65	1.0000%	\$12.78	1.0000%	\$12.91
7	\$1,003.50	0.0582070%	\$0.58	\$1,004.08	\$16.99	1.0000%	\$17.16	1.0000%	\$17.33
8	\$1,004.08	0.0582070%	\$0.58	\$1,004.67	\$22.00	1.0000%	\$22.22	1.0000%	\$22.44
9	\$1,004.67	0.0582070%	\$0.58	\$1,005.25	\$27.69	1.0000%	\$27.97	1.0000%	\$28.25
10	\$1,005.25	0.0582070%	\$0.59	\$1,005.84	\$34.08	1.0000%	\$34.42	1.0000%	\$34.77
11	\$1,005.84	0.0582070%	\$0.59	\$1,006.42	\$41.19	1.0000%	\$41.60	1.0000%	\$42.02
12	\$1,006.42	0.0582070%	\$0.59	\$1,007.01	\$49.02	1.0000%	\$49.51	1.0000%	\$50.01
13	\$1,007.01	0.0582070%	\$0.59	\$1,007.59	\$57.60	1.0000%	\$58.18	1.0000%	\$58.76
14	\$1,007.59	0.0582070%	\$0.59	\$1,008.18	\$66.94	1.0000%	\$67.61	1.0000%	\$68.29
15	\$1,008.18	0.0582070%	\$0.59	\$1,008.77	\$77.05	1.0000%	\$77.82	1.0000%	\$78.60
16	\$1,008.77	0.0582070%	\$0.59	\$1,009.35	\$87.96	1.0000%	\$88.83	1.0000%	\$89.72
17	\$1,009.35	0.0582070%	\$0.59	\$1,009.94	\$99.66	1.0000%	\$100.66	1.0000%	\$101.67
18	\$1,009.94	0.0582070%	\$0.59	\$1,010.53	\$112.20	1.0000%	\$113.32	1.0000%	\$114.45
19	\$1,010.53	0.0582070%	\$0.59	\$1,011.12	\$125.57	1.0000%	\$126.83	1.0000%	\$128.09
20	\$1,011.12	0.0582070%	\$0.59	\$1,011.71	\$139.80	1.0000%	\$141.20	1.0000%	\$142.61
21	\$1,011.71	0.0582070%	\$0.59	\$1,012.29	\$154.90	1.0000%	\$156.45	1.0000%	\$158.02
22	\$1,012.29	0.0582070%	\$0.59	\$1,012.88	\$170.90	1.0000%	\$172.61	1.0000%	\$174.34
23	\$1,012.88	0.0582070%	\$0.59	\$1,013.47	\$187.81	1.0000%	\$189.69	1.0000%	\$191.59
24	\$1,013.47	0.0582070%	\$0.59	\$1,014.06	\$205.65	1.0000%	\$207.71	1.0000%	\$209.78
25	\$1,014.06	0.0582070%	\$0.59	\$1,014.65	\$224.44	1.0000%	\$226.68	1.0000%	\$228.95
26	\$1,014.65	0.0582070%	\$0.59	\$1,015.24	\$244.19	1.0000%	\$246.63	1.0000%	\$249.10
27	\$1,015.24	0.0582070%	\$0.59	\$1,015.84	\$264.94	1.0000%	\$267.59	1.0000%	\$270.26
28	\$1,015.84	0.0582070%	\$0.59	\$1,016.43	\$286.69	1.0000%	\$289.56	1.0000%	\$292.45
29	\$1,016.43	0.0582070%	\$0.59	\$1,017.02	\$309.47	1.0000%	\$312.56	1.0000%	\$315.69
30	\$1,017.02	0.0582070%	\$0.59	\$1,017.61	\$333.30	1.0000%	\$336.63	1.0000%	\$340.00
31	\$1,017.61	0.0582070%	\$0.59	\$1,018.20					
Totals				\$31,290.39					\$340.00

**Capital Projects Fund Funding Proposal
(in lieu of a lump sum tax increase)**

Funding Methodology									
Option 1:	No tax increase over 30 years, \$1,000 per year. Increase taxes by 34% in year 31 or an additional \$340. Total tax in year 31 is \$1,340.								
Option 2	Increase property tax each year over 30 years at a certain rate to meet the funding goal, in this case \$340. Invest the difference between any given year's tax liability and the "no tax increase" base liability referenced above at a certain rate to meet the funding goal, in this case \$340. (Assume funds are invested in U.S. Treasury debt instruments that pay annual interest of 2%, payable twice per year.)								
Analysis and Effect on Taxpayer									
Option 1:	No tax increase over 30 years, \$1,000 per year. Taxpayer pays \$30,000 over 30 years and \$1,340 in year 31 for a total of \$31,340.								
Option 2	Taxpayer pays \$30, 272.19 over 30 years and \$1,018.20 in year 31 for a total of \$31,290.39. Taxpayer saves \$49.61 over 30 years ($\$31,340 - \$31,290.39$) and reduces the year 31 tax liability by \$321.80 or 94.65% when compared to Option 1 ($\$1,340 - \$1,018.20 = \$321.80$; $\$321.80 / \$340.00 = 94.65\%$).								
	Option 2 smoothes out the yearly tax liability and provides for a sinking fund to replace assets or meet projected expenditures.								

STATE OF UTAH

UNIFORM ACCOUNTING MANUAL FOR CITIES

Reference: E. 02
Page: 1 of 5
Subject: Investment of Public Funds
Effective Date: 1 April 1986
Revision Date: 1 January 2012

With the cost of providing public services increasing, it is imperative that local governmental officials invest available resources to the benefit of their governmental units. *Utah Code* Section 51-7, known as the Money Management Act, defines the criteria for investment of public funds (51-7-17) and the types of investments that may be made (51-7-11). A booklet containing these laws is available from the State Treasurer or the laws may be found in the *Utah Code*.

The State Auditor's Office encourages the investment of local funds through the Public Treasurer's Investment Fund (the pool) managed by the State Treasurer. The investment expertise available in the State Treasurer's Office and the high yields that can be obtained through their pooling concept are difficult for most local government units to match. Contact Stephanie Baldes in the State Treasurer's Office at 538-1470, or toll free at 800-395-7665 for information.

The State Treasurer has prepared the following information for public treasurers of local governmental units:

INTRODUCTION

Most Utah public treasurers face a fiscal profile characterized by cyclical revenue and ratable expenses. Revenue is collected on a quarterly or annual basis in relatively substantial "spurts". Expenses are primarily personnel-related costs, and are generally stable. Receipt of bond proceeds and payment of related debt service costs are controlled and predictable with a high degree of accuracy. In this environment, the most critical concerns for the public treasurer should be: 1) appropriate cash management and, 2) matching of collections with expenditures. An appropriate investment strategy will include objectives which address these two areas.

CASH MANAGEMENT

The most basic statement of the principle of cash management is "speed-up all collections; slow down all expenditures and keep all available funds fully invested". The treasurer should review all sources of revenue to identify the point of collection, the method of collection, and the timing and volume of receipts. Each class of revenue should be examined to determine if there are alternatives which might result in faster collection. Any bottlenecks should be identified and eliminated. This may require cooperation between several municipal departments, particularly if revenue is collected in multiple locations. Some generalized suggestions follow:

1. Review mail room procedures and ascertain that all mail is distributed daily and early enough to facilitate deposit of incoming checks.
2. Instruct your bank to credit your account with interest due upon maturity of time deposits. (Many banks issue a check which is mailed to the depositor. This practice should be discouraged.)
3. Consider having any revenue payable through the state deposited directly into the Public Treasurer's Investment Fund as opposed to being mailed-out.

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4. Use wire transfers or ACH (electronic fund transfers) directly to your account for investment maturities and any revenue which can be controlled by the local government.
5. Accelerate the processing of receipts within government departments:
 - a. Discourage departments from holding receipts; cite the importance of depositing and investing funds as quickly as possible.
 - b. Establish control over receipts as early in the process as possible; then separate checks and cash from related paperwork and deposit.
6. Always deposit large checks immediately; do not wait for supporting paperwork, even if the receipt is "unidentified".
7. Consider sorting checks by the bank on which they are drawn and depositing into accounts at that bank. These represent "on us items" at the bank, and are "good funds" in your account on the day deposited. Use wire transfers to concentrate these funds for investment.
8. Carefully monitor the balance in your bank account(s) to avoid building up excess balances which should be invested.
9. Consider use of a lock box at your bank or internet payment processing for recurring voluminous receipts, such as utility collections.

On the expenditure side, the treasurer should usually ascertain that payments are made on the due date (not prior to the due date) and are made as efficiently as possible. Funds should be provided in demand accounts at the time checks are expected to clear, not at the time checks are issued. For bond payments and other transactions processed through a bank acting as trustee or paying agent, the treasurer should provide collected funds on the due date. Frequently, the bank will request payment prior to the due date to assure that funds are available on the due date. This practice should be discouraged.

The treasurer should prepare a cash forecast as a basic tool in the development of an investment program. The cash forecast may be as simple as a large calendar on which scheduled expenditures and anticipated revenues are entered-worksheet fashion. An important use of the cash forecast, often omitted, is a continual comparison of the forecast to the actual flow of cash. This may point out significant variances which could indicate procedural problems requiring corrections.

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INVESTMENT STRATEGY

Generally speaking, treasurers are working with funds that will be expended over a relatively short period of time. The basic precept of a “balanced budget” is that revenues equal expenditures during the budget period; usually one year. The Money Management Act requires a public treasurer to match the maturity of investments with the anticipated expenditure of these funds. As a consequence, it is very improbable that any treasurer would have funds that could be invested in an instrument having a term beyond one year. Remembering that the objective is to match cash collections with expenditures, most treasurers will reject longer-term investment alternatives, regardless of “yield” or “liquidity.”

Given these parameters, most public treasurers will be using short-term, very liquid investment securities such as:

1. Money Market Demand Accounts: daily demand accounts earning “market rates” of interest, usually based on current Treasury Bill yields. Beware of withdrawal restrictions on most such accounts.
2. “Sweep” Accounts: non-interest bearing checking account, some portion of which is automatically “swept” into a repurchase agreement each night upon determination of the collected balance in the account. The repurchase agreement is usually a pooled “repo” earning interest at a rate somewhat below that of a negotiate repo, but comparable to rates paid on money market demand accounts.
3. Money Market Mutual Funds: a pool of short-term money market instruments typically comprised of commercial paper, bankers’ acceptances, certificates of deposit, and treasury bills.

These mutual funds are generally operated and administered by major brokerage houses, and must be registered with the SEC. These investments have no maturity date, thus, one can put and take monies on demand, earning interest at the daily rate generated by the investments in the fund during the investment period.

4. Repurchase agreements: a simultaneous purchase and resale of the same securities at an agreed price and time. Collateral for “repos” includes governmental and agency obligations. Repos of up to three months are not uncommon. The important point is that a repo can be written for any term, and can coincide exactly with a specific cash need. The securities purchased (the “collateral”) should have an aggregate market value greater than the dollar amount on repo to provide some protection. The treasurer must take physical possession of the collateral or have it delivered to a third party holder to perfect his interest in the securities. Where broker repos are involved, securities must be delivered to the treasurer’s safekeeping bank.

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5. Time Certificates of Deposit: term deposits earnings interest at a negotiated rate for a negotiated period of time. TCDs may be negotiable or non-negotiable. Most Utah banks issue only “non-negotiable” TCDs, meaning that they cannot be sold and must be held to maturity. Generally TCDs of less than \$100,000 par value will not earn the same rate as larger time deposits. Utah law requires interest on TCDs of \$100,000 or more to be calculated on the basis of actual number of days divided by 360 days.
6. Public Treasurers Investment Fund: the “pool” is a convenient deposit-type investment administered by the State Treasurer’s Office and offering daily liquidity. There are no minimum balance requirements, no limitations on transactions, and no “commissions”. Pool deposits are invested mainly in short term investment securities, including time certificates of deposit, government agency obligations, corporate notes, and commercial paper.
7. Banker’s Acceptances: short-term (usually 180 days or less) debt issued through the banking system secured by title to salable merchandise. The “BA” is an irrevocable primary obligation of the accepting bank, and contingent obligation of the drawer and of any endorsers. BAs of top banks are sold at a discount, maturing at face value, and are routinely marketed by brokers. BAs must be eligible as collateral for borrowing from a Federal Reserve Bank in order to meet requirements of the Money Management Act.
8. Commercial Paper: short-term unsecured promissory notes issued by corporations and government entities. Commercial paper is usually sold at a discount in multiples of \$100,000, although coupon issues in denominations as small as \$25,000 are available. The term of commercial paper is typically one day to nine months (270 days). Rates are comparable to, or slightly above, bankers acceptances and certificates of deposit issued by top name banks. Commercial paper is marketed by brokers, or directly by the issuer, and is usually delivered in New York City. To comply with the Money Management Act, commercial paper must be rated in the top rating category by two nationally recognized statistical rating organizations, one of which must be Moody’s Investors Services, or Standard and Poors, Inc.
9. U.S. Treasury Bills: direct obligations of the United States issued for terms of 91 days, 182 days, or 364 days. Treasury Bills maturities are scheduled every Thursday of the year, except Thanksgiving Day. Bills are sold at a discount, and mature at par. Yields are usually slightly below time certificates of deposit, but may exceed local certificate yields at any point in time. Bills may be sold at any time to meet unexpected cash needs. Sale prior to maturity can result in a substantially reduced yield due to interest rate fluctuations. Treasury Bills may be purchased from a broker, or from your local bank, and are considered to be the most liquid of all investments.

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CUSTODY OF SECURITIES

The Money Management Act requires public treasurers to take physical delivery of all securities purchased. In the case of out-of-state time deposits, commercial paper, bankers acceptances and government and agency bonds, physical delivery will be to a safekeeping account established by the treasurer at a bank, usually in New York. Safekeeping by the selling broker is not permitted under the Act. Any security not physically held by the treasurer must be supported by a safekeeping receipt issued by a qualified depository or by the treasurers' safekeeping money center bank.

CONCLUSION

The small public treasurer should normally concentrate his investment program in short-term, liquid securities. Some mix of demand accounts (interest bearing or non-interest bearing), repurchase agreements, time deposits, and deposits in the Public Treasurer's Investment Fund will result in the most prudent, efficient program. Larger treasurers may wish to diversify by adding treasury bills, bankers acceptances, commercial paper, and out-of-state negotiable certificates of deposit. Use of these instruments will require establishment of a safekeeping arrangement with a money center bank to be efficient and to comply with statute. Only in unusual circumstances would a treasurer consider Treasury bonds, or government agency issues (GNMAs FNMA's etc.) as an investment due to their long terms. Generally speaking, a public treasurer will obtain the best results by carefully managing cash flow and investing all available funds in short-term, familiar investment securities such as time deposits, repurchase agreements, and the Public Treasurer's Investment Fund.