GENERAL FUND RESERVE POLICY REPORT

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Fiscal Policy ■ Financial Planning ■ Analysis ■ Training ■ Organizational Review

General Fund Reserve Policy Report

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City of Carpinteria
GENERAL FUND RESERVE POLICY REPORT

The purpose of this report is to review the City's current reserve policy for "Financial and Economic Uncertainty" and make recommendations for change as appropriate. Provided in Appendix A is the recommended General Fund reserve policy for this purpose, which covers six key areas:

- Sets the minimum reserve target (retains the current policy of 40% of expenses, with added guidance on the "base" this applies to).
- Identifies when it is appropriate to use reserves below the target amount.
- Provides a strategy for restoring the reserve if it falls below the target minimum.
- Presents guidelines for accounting and financial reporting of the reserve.
- Discusses other areas where the Council may decide to set reserve amounts.
- Compares actual versus target.

As noted above, the current policy is 40% of expenses. Based largely on the structured approach developed by the Government Finance Officers Association of the United States and Canada (GFOA) in assessing risk factors, the proposed policy retains this target, but clarifies the basis as 40% of operating, debt service and subsidy transfers.

PROPOSED POLICY OVERVIEW

Minimum Reserve Target

The recommended policy retains the target minimum unrestricted General Fund balance for "Financial and Economic Uncertainty" at 40% of operating, debt service and subsidy transfers. This is largely based on the structured assessment methodology for setting reserve levels developed by the GFOA in considering a city's exposure to the following eight fiscal risk factors, which are discussed in greater detail later in this report:

- Vulnerability to extreme events and public safety concerns
- Revenue source stability
- Expenditure volatility
- Leverage, such as unfunded pensions and asset maintenance
- Liquidity (cash flow)

- Dependence of other funds on the General Fund
- Growth: revenue and expenditure imbalance
- Unfunded high priority capital projects

Depending on the results of this assessment, the GFOA methodology provides recommended targets ranging from a minimum of 16.6% of expenditures (60 days cash flow) to circumstances where more than 35% might be warranted. Based on the City's circumstances, the GFOA's structured methodology recommends a target in excess of 35%. Accordingly, in light of the recent pandemic as well as past natural disasters, economic downturns and State takeaways, this report recommends retaining the 40% target with a clarified base and scope (including cash flow and contingencies) as follows.

> *The City will strive to maintain a minimum General Fund unrestricted balance (less encumbrances and reappropriation carryovers) of at least 40% of operating and debt service expenditures plus subsidy transfers to other funds for fiscal stability, cash flow and contingencies such as economic downturns, catastrophic events and unforeseen operating or capital needs. This target is based on financial management best practices and industry standards, including the risk assessment methodology for setting reserve levels developed by the Government Finance Officers Association of the United States and Canada.*

Policy Title Change. To better reflect its scope, this report recommends revising the reserve policy title to: *Reserve for Fiscal Stability, Cash Flow and Contingencies*.

Accounting for the Reserve

As noted in the sidebar, under generally accepted accounting policies, General Fund balances are classified into the following categories:

- Non-spendable
- Restricted
- Unrestricted
  - Committed
  - Assigned
  - Unassigned

While categorizing fund balance as non-spendable or restricted is generally clear between cities, the classification of the unrestricted fund balance between committed, assigned and unassigned amounts varies between cities based on their budget and fiscal policies.

General Fund Balance Classifications

Under generally accepted accounting principles set by the Government Accounting Standards Board (GASB) in Statement No. 54, General Fund balance is classified into five components:

- ***Non-Spendable.*** Amounts that are not in spendable form, such prepaid items or inventories.
- ***Restricted*****.** Amounts subject to *externally* enforceable restrictions imposed by outside third parties.
- ***Committed.*** Amounts whose use is constrained internally by the agency itself for specific purposes set by the governing body.
- ***Assigned.*** Amounts intended for specific purposes as determined by the governing body or others it has formally designated.
- ***Unassigned.*** Residual classification of spendable amounts available for other purposes.

General Fund Reserve Policy Report

The City currently categorizes its reserve for "financial and economic uncertainties" as "committed" in its audited financial statements. Other cities might consider this as "assigned" or "unassigned." This purpose falls into a category that GASB calls "revenue stabilization, working capital needs, contingencies or emergencies;" and unless they are specifically classified as restricted or committed, GASB 54 states that they "… should be reported as unassigned in the general fund."

As the City's current reserve policy (adopted by Resolution 5786 in April 2018) calls for categorizing this reserve as "committed," it meets the GASB criteria.

Setting the Base

The City's current policy sets the "base" for the target as "General Fund expenses." This report recommends being clear on the base, since "expenses" may be subject to changing interpretations. While the difference in result is likely to be insignificant, for clarity and transparency in calculating the reserve, a minor change in the base is recommended to "operating and debt service expenditures plus subsidy transfers."

Current General Fund Reserve Policy

The current policy was adopted by the Council in April 2018 and addresses a wide range of issues related to General Fund reserves. In addition to setting the 40% target for fiscal stability, it also establishes two other reserves, each at $1 million:

- General Reserve
- Major Asset Replacement and Repair Reserve

As noted above, this report focuses solely on the 40% target: no other changes in the current policy are recommended.

If the Council concurs with the recommended changes, staff will return for Council approval a resolution amending the policy as set forth in Appendix A.

The City's current policy is on the City's web site at: https://carpinteriaca.gov/wp-content/uploads/2020/01/admin-services_Reserve-Policy-and-Resolution.pdf

Other Policy Provisions

- ***Purpose of reserves.*** Reserves exist for a reason. The proposed policy sets forth those purposes in accordance with the risk assessment methodology developed by the GFOA. (These are consistent with the City's current policy.)

- ***Other Assignments/Commitments.*** The recommended policy makes it clear that the Council may make other assignments or commitments of General Fund balance in addition to the 40% reserve target, which the Council has done (such as the General and Major Asset Replacement and Repair Reserves). It also is clear that the target is after any assignments or commitments for appropriation carryovers and encumbrances.

- ***Guidance on when it is appropriate to go below the minimum target***. The proposed policy sets forth the circumstances where taking reserves below the target minimum balances would be appropriate in accordance with its purpose.

- ***Restoring the reserve if it falls below the target minimum***. The proposed policy provides for restoring reserves to policy levels within five years; and as revenues versus expenditures begin moving in a positive direction, allocating at least 50% to restoring the reserve.

Including the Reserve Policy in the Budget Document

Having a clearly fiscal policies has its greatest value during the budget preparation, review and adoption process. For this reason, it makes sense to include key fiscal and budget policies in the Budget document. The City currently includes several key significant accounting policies in its budget document. This report recommends including the recommended reserve policy as well. In this case, the policy should be compared with the budgeted ending fund balance.

DISCUSSION

The Power of Fiscal Policies

As we know from experience over the past 25 years, with the recessions and recoveries of 1992-94, 2003-05, the Great Recession beginning in 2008 and the economic downturn resulting from Covid-19 protection measures: good times come and go. *But an organization's values shouldn't*. And that's what fiscal policies are all about: articulating your financial management values before they are placed under stress.

Stated simply, clearly articulated policies – and being guided by them – are the best way of ensuring long-term fiscal health. While the strength of the local economy and related General Fund revenues are important, no city is immune from economic downturns. In navigating tough fiscal times, effective financial management is the most critical factor for long-term fiscal success; and clearly articulated policies provide an essential framework and foundation for effective decision-making.

Fiscal policies are important in both good times and bad. The roots of fiscal adversity for most governments take hold in the good times, by making commitments that are not sustainable. They rarely surface in the "bad" times, when most agencies act on the "First Rule of Holes" (when you find yourself in one, stop digging).

They are both preventative and curative:

- Clearly articulated policies – and following them – help prevent problems from arising in the good times.

- And provide more effective responses when the inevitable bad times occur.

They are most powerful when put in place before the need for them arrives, recognizing that not all financial decision-making situations can be reasonably anticipated.

Policies should be set based on where the agency wants to be, which may not be where it is today. However, setting the course for where it wants to be, significantly enhances its ability to get there. Accordingly, each policy should include a brief "compliance status." And if it is not there yet, the policy should provide the agency's plan for getting there.

Policies Versus Plans. Planning is essential for success. However, plans change over time as actual results replace assumptions. But fiscal policies are the "north star" guiding the preparation of plans. They help making tough decisions easier by articulating values before they are put under stress by adverse circumstances. An organization can reasonably do something else, but policies are a powerful starting point for asking: but for "this" unexpected circumstance, what would we have otherwise done?

Lastly, of all the fiscal policies that cities should set, minimum reserve targets are among the most important.

Prudent Reserves Reflect Ability to Manage Risk, Not Fiscal Strength Per Se

Reserves – whether large or small – do not per se reflect on a city's financial capacity or underlying fiscal strength. There are much better indicators than reserves for this, most notably the ability over time for ongoing revenues to adequately meet day-to-day service needs, capital improvement goals and debt service requirements.

Stated simply, reserves are a risk management tool: how much can things go differently than the organization otherwise thought they would before it must take corrective action? Reserves can also serve as a bridge to the future, providing time to develop and implement thoughtful solutions where projected gaps are systemic.

Typical risks that reserves help mitigate include economic uncertainties, such as downturns in the economy and external revenue hits (like State takeaways); responding to local disasters; contingencies for unforeseen operating or capital needs; strategic opportunities; and cash flow. And more recently, Covid-19 adds pandemics to the mix.

What's the Right Amount? This depends on each agency's unique fiscal circumstances and capacity for risk. In answering this question, there are two sources to consider:

- Rating agency recommendations.
- GFOA structured assessment approach.

➊ Rating Agency Recommendations

All three of the major rating agencies – Moodys, Standard and Poors and Fitch – identify reserve policies as one of their most important factors in assessing an agency's financial management and assigning bond ratings. While they do not provide recommended minimums, they are interested in their basis and the agency's track record in following them.

➋ GFOA Structured Assessment Methodology

The GFOA has developed a structured assessment methodology for setting reserve levels in considering an agency's exposure to the following eight fiscal risk factors:

1. ***Vulnerability to Extreme Events and Public Safety Concerns.*** Major extreme events the community could reasonably be subject to and the likelihood and potential magnitude of loss for each event.

2. ***Revenue Source Stability.*** Volatility of each major revenue source based on factors such as past experience and trends with that revenue, characteristics of the tax or rate payers, state or federal revenue takeaways and economic factors.

3. ***Expenditure Volatility.*** Spikes in expenditures, usually arising from special, non-recurring circumstances such as lawsuits; critical special projects without a funding source; or new state or federal spending requirements and unfunded mandates.

4. ***Leverage.*** Common examples include unfunded pensions and unfunded asset, as well as outstanding bonded indebtedness and compensated absences. Is the source of leverage very large? Does it have an off-setting funding source or asset?

5. ***Liquidity (Cash Flow).*** Intra-period cash imbalances, such as property taxes that are only received at two major points during the year (December and June).

6. ***Dependence of Other funds.*** Are there other funds that have a significant dependence on the General Fund?

7. ***Growth.*** Is significant growth a realistic possibility in the next three to five years? This includes assessing likely potential marginal costs associated with serving new growth compared with marginal revenues and resulting gaps.

8. ***Capital Projects.*** Are there high priority projects without a funding source, where reserves may be looked to as a funding source?

As discussed in greater detail in Appendix B, the methodology uses a scale of 5-1 in assessing how important reserves are in mitigating each risk:

5: Very important
4: Important
3: Neutral
2: Unimportant
1: Very unimportant

Since there are eight mitigation factors, total scores will range from 8 (the least risk) to 40 points (greatest risk). Along with these eight risk factors, the methodology also considers:

- City size (assumes larger cities have more mitigation strategies than smaller ones)
- Other reserve/contingency funds
- Borrowing capacity

Depending on the results of this assessment, the GFOA methodology provides recommended targets ranging from a minimum of 16.6% of expenditures (60 days cash flow) to circumstances where more than 35% might be warranted.

The following summarizes the GFOA's rating scale.

GFOA Reserve Rating Scale

Rating	Target Minimum General Fund Reserve
8 -16	Minimal risk to retain through reserves. Consider target equal to the GFOA minimum recommended reserve of 16.6% (two months cash flow) of revenues/expenditures.
17-24	Low to moderate level of risk to retain through reserves. Consider reserve target of 17% to 25%.
25-31	Moderate to high level of risk to retain through reserves. Consider reserve target of 26% to 35%.
32-40	High level of risk to retain through reserves. Consider reserve target greater than 35%.

As detailed in Appendix B, the City's rating under this methodology is 32, which indicates that the target minimum should be more than 35%.

Six of the assessment factors were largely responsible for this rating:

- Extreme events
- Liquidity/cash flow (30% needed to cover lowest point during the year)
- Unfunded capital projects
- Revenue stability
- Expenditure volatility
- Dependence of other funds on the General Fund

The other two factors (leverage and new development/growth) were not significant in this rating.

ALTERNATIVES

Setting the Minimum Target Reserve at Lower or Higher Amounts than 40%

Based on the results of the GFOA structured assessment methodology, the risks facing the City support a reserve in excess of 35% compared with the current target of 40%.

Mitigating Cash Flow with TRANS

A possible mitigation for cash flow needs (or responding in the short term to other risks) is the use of Tax and Revenue Anticipation Notes (TRANS).

TRANS are short-term borrowings by local government agencies who are not able to meet their cash flow needs during the year. They are typically issued early in the fiscal year and repaid before year-end.

At one time, many TRANS were issued as an investment strategy since the proceeds could be invested at higher yields than their tax-exempt interest rate. However, this favorable variance between interest costs and yields has not been the case since the Great Recession.

Stated simply, while incurring debt to meet cash flow needs is an option, it is preferable to avoid it if possible. Moreover, TRANS are not free: there are financing and interest costs in issuing them.

Appendix C provides a cash flow analysis for the General Fund, which shows the need for 30% to cover the lowest point in the fiscal year (May) before the receipt of the second installment of property tax revenues (the City's most important General Fund revenue source). However, there are four other months with significant cash flow shortages (October, November, March and April) ranging from 21% to 28%.

However, the Council is the ultimate "decider" in balancing risks and reserves. Stated simply, the City's fiscal resources do not exist to amass large fund balances but rather, to deliver important services that help make Carpinteria a good place to live, work and play. On the other hand, prudent reserves are essential in helping assure stability in the delivery of services.

Accordingly, the Council could reasonably set reserves at levels that are lower or higher than retaining the current target.

Lower Target than 40%. Given other reserves established by the City, it might be reasonable to lower the minimum reserve policy to 35%. However, the current pandemic combined with past challenges with floods, economic downturns, unexpected costs and State takeaways, argue for setting the target above 35%, which is reinforced by the GFOA methodology.

Higher Target than 40%. Based on surveys provided on the California Society of Municipal Finance Officers' web site as well as other studies, there are many cities in California that have minimum target reserve policies of 50% or higher, including:

- La Canada Flintridge: 125%
- Millbrae: 89%
- Cupertino: 82%
- Stanton: 75%
- La Palma: 60%
- Burlingame: 65%
- Gilroy: 51%
- Mountain View: 51%
- Brisbane: 50%
- Camarillo: 50%
- Laguna Nigel: 50%
- Lomita: 50%
- Malibu: 50%
- Mission Viejo: 50%
- Moraga: 50%
- Rancho Palos Verdes: 50%
- San Ramon: 50%

Accordingly, given the many uncertainties ahead, and especially in light of the pandemic (which after a number of ups and downs is far from over), a target higher than 40% would also be reasonable.

Segregating the Reserve into Separate Components

Like the current policy, the recommended policy sets a unified reserve target of 40% to meet the aggregate of the risks it is intended to meet. Some cities segregate this reserve into the separate factors that they are intended to mitigate. However, since not all factors are likely to come into play at the same time, a unified target makes sense: "pooling" serves to lower the overall reserve amount that might otherwise be needed to meet each of the risk factors individually. Moreover, budgeting and accounting for the reserve is simpler and more straightforward, as is communicating its purpose to the community and organization.

Note: While cash flow also plays an important role in setting the minimum reserve target, if the 40% target and other reserves are maintained, they should also cover cash flow needs. However, this is another reason for setting a unified target rather than segregating it.

Setting the Base

As noted above, the City's current policy sets the "base" for the target as "General Fund expenses."

However, other "base" options used by California cities include:

- Total expenditures and uses (operating, debt service and capital expenditures, and transfers out).
- Operating expenditures only.
- "Normal" annual expenditures (thus including operating costs, less one-time costs such as special studies and plans; debt service; some "normal" capital costs; and transfers out, less any one-time purposes).
- Other combinations of expenditures and uses.
- Revenues rather than expenditures.

Where the base is narrower (such as just operating expenditures), the same target percentage will result in a smaller reserve; conversely, where the base is broader (including capital, debt service and/or transfers), the same target percentage will result in a larger reserve.

In the case of the City, it makes sense to include operating and debt service costs as well as subsidy transfers as the base.

- ***Operating costs*** are included in the base in virtually all cities, which makes sense: this is the "core" cost base of city services that is most at risk; and while sensitive to economic changes and community needs (up or down), it is relatively stable from year to year. While it is possible that there may be significant one-time costs included in the operating budget, adjusting for this is not recommended: the difference is likely to be immaterial and, more importantly, transparency in calculating the reserve target will be enhanced by "keeping it simple."

- ***Debt service costs*** are also ongoing contractual obligations (until the principal balance is paid-off); accordingly, it makes sense to include this in the target base as well. While the City does not currently have any General Fund debt service costs, this could change in the future. Accordingly, to be proactive in accounting for this possibility, it makes sense to include this as part of the base.

- ***Subsidy transfers*** are also ongoing commitments, and as such, should be included in the target base.

On the other hand, capital projects can vary from year-to-year, and the reserve should be relatively stable. Accordingly, capital outlay expenditures and transfers-out for CIP projects are excluded. And since they are internally determined, other transfers-out are also excluded.

CONCLUSION

Establishing a reserve policy – and being guided by it – is among the most important of the City's fiscal policies in mitigating financial risks. Based on the results of the GFOA structured assessment methodology, this report recommends that the minimum reserve target continue to be set at 40% (but on a slightly revised base of operating and debt service expenditures plus subsidy transfers).

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APPENDIX

A. Proposed Amendment to General Fund Reserve Policy
B. General Fund Reserve Risk Factors: GFOA Structured Assessment Methodology
C. Cash Flow Analysis

Appendix A: Proposed Amendment to General Fund Reserve Policy

RESERVES FOR FISCAL STABILITY, CASH FLOW AND CONTINGENCIES

The City will strive to maintain a minimum General Fund unrestricted balance (less encumbrances and reappropriation carryovers) of at least 40% of operating and debt service expenditures plus subsidy transfers to other funds for fiscal stability, cash flow and contingencies such as economic downturns, catastrophic events and unforeseen operating or capital needs. This target is based on financial management best practices and industry standards, including the risk assessment methodology for setting reserve levels developed by the Government Finance Officers Association of the United States and Canada in adequately addressing:

- Economic uncertainties, local disasters, public heath crises and other financial hardships or downturns in the local or national economy.
- Contingencies for unseen operating or capital needs, including strategic investment opportunities.
- Unfunded liabilities such as pensions and retiree health obligations.
- Dependency of other funds on the General Fund.
- Institutional changes, such as State budget takeaways and unfunded mandates.
- Cash flow requirements.

Whenever the City's General Fund unrestricted balance falls below this target, the City will strive to restore reserves to this level within five years. As revenues versus expenditures begin moving in a positive direction, the City will allocate at least half to reserve restoration, with the balance available to fund asset replacements, unfunded liabilities, capital improvement projects, service level restorations or new operating programs.

Circumstances where taking reserves below policy levels would be appropriate include responding to the risks that reserves are intended to mitigate, such as:

- Meeting cash flow needs during the fiscal year.
- Closing a projected *short-term* revenue-expenditure gap.
- Responding to unexpected expenditure requirements or revenue shortfalls.
- Making investments in unfunded liability reductions, economic development and revenue base improvements, productivity improvements and similar strategic opportunities that will strengthen City revenues, reduce future costs or achieve "one-time" high-priority City goals.
- Where a forecast shows an ongoing structural gap: providing a strategic bridge to the future by providing time to develop and implement thoughtful solutions.

On the other hand, the City should avoid using reserves to fund ongoing costs or projected systemic "gaps." Stated simply, reserves can only be used once, so their use should be restricted to one-time (or short-term) uses.

Future Capital Project or Other Long-Term Goal Assignments or Commitments

The Council may also commit or assign specific General Fund balance levels above the reserve target for fleet, facility, technology and equipment replacements; major repairs; future development of capital projects, unfunded liabilities and similar policy commitments and assignments for future purposes and long-term goals that it determines to be in the best interests of the City.

Other Commitments and Assignments

In addition to the 40% target noted above, unrestricted fund balance levels will be sufficient to meet funding requirements for programs or projects approved in prior years which are carried forward into the new year; debt service reserve requirements; commitments for encumbrances; and other restrictions, commitments or assignments required by contractual obligations, state law or generally accepted accounting principles.

Status: In Compliance. *The 2021-22 Budget projects that the ending reserve for fiscal stability, cash flow and contingencies will be $4.65 million, which is based on the 40% target.*

Analyzing the General Fund Reserve Risk Factors

The sections below provide guidance on analyzing the risk factors described in Chapter 4 on general fund reserves. Each heading corresponds to a worksheet in the Excel workbook that is available at www.gfoa.org. The blue cells in the sheet are entry cells. There should be no need to type in other cells. Complete the sheets starting with the left-most and continue all the way to the final sheet at the right.

The first eight sheets ask you to analyze each risk factor in the book. First, you identify your basic sources of risk. Then you assess the level of risk you face. Next, you identify other available risk mitigation approaches. The sections below provide more specific guidance on how to accomplish this for each risk factor. Finally, you decide how important it is for your government to retain risk through general fund reserves. The level of importance is indicated by assigning a 1 through 5 score, where 5 indicates the greatest need to retain risk. Each sheet contains guidelines to help you decide the most appropriate score for each risk factor.

The ninth and final sheet helps you to zero in on a final reserve target by summarizing the results of the prior eight sheets and bringing in other drivers of reserve size. Note that this sheet does not provide you with a precise suggested target. Rather it suggests a broad range and strategies for arriving at a final target.

Below is more specific guidance for analyzing the risk factors in the first eight sheets.

Vulnerability to extreme events and public safety concerns **Identify**

Risks. List out the major extreme events to which the community could reasonably be subjected. This could include both natural and man-made events. Public safety professionals may have a community disaster preparedness plan that could help identify these risks; linking the reserve analysis to such a plan would increase the credibility of the resulting policy.

Assess Risks. Consider the potential magnitude of loss for each event. The magnitude of loss should be based on past experiences with similar extreme events or reasonable estimates based on the disaster preparedness plan (note that the estimate is not necessarily a worst-case scenario).

Identify Other Risk Mitigation Approaches. If extreme events a are serious risk for the community, also consider risk transfer options. Might more comprehensive insurance coverage be a better option than very high levels of fund balance? If the source of risk is man-made, such as the potential for an accident at a hazardous chemical plant, might the chemical company be able to take greater responsibility for the risk they pose to the community? Also consider how quickly federal assistance can be accessed and the speed with which funds spent responding to a disaster might be reimbursed.

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to extreme events.

Appendix B: GFOA Structured Assessment Methodology

Revenue Source Stability

Identify Risks. Start by listing out major revenue sources.

Assess Risks. Consider the volatility of each source, based on factors such as past experience and trends with that revenue, characteristics of the tax or rate payers, and economic factors.

Identify Other Risk Mitigation Approaches. Think about other approaches that the government has to deal with declining revenues. This might include means to easily reduce variable costs or the ability to access other sources of funding.

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to revenue stability.

Expenditure Volatility

Identify Risks. Start by listing sources of potential spikes in expenditure (usually arising from special, non-recurring circumstances) that could be expected to occur within the next three to five years. Examples might include lawsuits against the government or critical special projects without a funding source. Typically, recurring sources of expenditure volatility, such as health care benefit costs, would not be included because they should be dealt with in the context of an annual budget process. An exception to this might be highly variable and difficult-to-predict costs, such as energy or fuel (in the case of a fleet).

Assess Risks. Enumerate a reasonable estimate of the potential cost of each source (i.e., the magnitude of the risk), taking into account the probability of it occurring (i.e., an unlikely event is less of a risk than a more likely event of similar potential loss).

Identify Other Risk Mitigation Approaches. Think about other approaches to dealing with these expenditure spikes. For example, the finance officer may find that some events (like an essential special project) have a very high chance of occurring, but will not occur for a number of years into the future. In this case, the finance officer could suggest a "sinking fund" where the project would be gradually funded over time. This could be made a commitment or assignment within the fund balance to help differentiate it from funds used to manage more uncertain risks. A similar approach could be used for known lawsuits.

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to expenditure spikes.

Leverage

Identify Risks. Start by listing major sources of leverage. Common examples include pensions, unfunded asset maintenance, and debt.

Assess Risks. Then assess each source's implications for the organization's future financial flexibility by consider the size of the obligation. Is the source of leverage very large? Does it have an off-setting funding source or asset?

Identify Other Risk Mitigation Approaches. It is often better to use other approaches to risk management on these sources of leverage, rather than retaining the risk through reserves. For example, if unfunded asset maintenance is a problem, then the finance officer might use an asset maintenance plan (or other suitable estimate) to demonstrate the magnitude of the risk and encourage the governing board create a special set-aside to begin funding this liability – and avoid managing this risk with general fund reserves. In another example, if unfunded pension liabilities are an issue, the organization should
develop a strategy to pay down those liabilities. In this situation, the finance officer could point out how pension liability constrains the financial flexibility of the organization, thereby decreasing the reserve's ability to manage other types of risk.

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to leverage.

Liquidity

Identify Risks. List major sources of intra-period cash imbalances. A good example is property taxes that are only received at one or two points during the year.

Assess Risks. Describe the size of the problem created by these sources of imbalance. Does it have the potential to significantly interfere with operations?

Identify Other Risk Mitigation Approaches. To what extent can tools like internal borrowing or tax anticipation notes provide a cost-effective alternative to keeping a reserve?

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to liquidity.

Other Funds' Dependency

Identify Risks. Start by listing other funds that have significant dependence on the general fund. Dependence will usually be indicated by regular operating transfers that are an unusually high percentage of the receiving fund's expenditure budget.

Assess Risks. Assess the level of reserves in these other funds. Are reserves low? If so, is this fund subject to potential risks that could require a substantial draw on reserves? If so, is the general fund expected to backstop this fund?

Identify Other Risk Mitigation Approaches. A major point for the finance officer to explore is whether the general fund should be "back stopping" these other funds in the first place. For example, an under-performing enterprise fund may be receiving operating transfers not because it is good public policy, but because the political will has not been mobilized to make the enterprise self-sufficient or to divest of it.

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to other funds.

Growth

Identify Risks. This factor is only relevant if significant growth is a realistic possibility in the next three to five years. Start by identifying major potential sources of growth.

Assess Risks. Estimate the potential marginal costs associated with serving new growth and compare it to marginal revenues (this information should be available from long-term financial plans and forecasts). If there is a gap due to significant timing differences between when revenue is received from growth and when expenditures are made on services for that growth, then reserve targets could be adjusted to account for that gap.

Identify Other Risk Mitigation Approaches. Special growth or impact fees could be assessed at the time of construction to avoid this risk. For example, if a new development is expected to generate $10M annually in new taxes starting three years in the future (but nothing before then), but costs $7M to service starting in two years, then a reserve (or impact fees) may be needed. If the gap between revenue growth and service expenditures is due to a structural mismatch between costs and revenues (i.e., the growth does not pay for itself), then the government should re-examine its tax-fee structures, service provision methods, and/or land use plans to correct this imbalance.

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to growth.

Capital Projects

Identify Risks. Use a capital improvement plan to determine if there are high priority projects without a funding source.

Assess Risks. Assess whether decision-makers might consider pay-as-you-go financing, using general fund reserves as at least part of the source.

Identify Other Risk Mitigation Approaches. If pay-as-you-go financing is something decision-makers might consider, then the finance officer may wish to broach the possibility of a commitment or assignment for the project so that pay-as-you-go financing does not detract from the general reserve's ability to manage other risks.

Assess Necessity of Risk Retention. Assign a score for the importance of risk retention through the use of reserves, when it comes to capital projects.

Appendix B: GFOA Structured Assessment Methodology

Your Target

Step 1. Determine Your Total Score from the Risk Factors
Step 1 on this sheet totals your scores from the foregoing sheets.

Step 2. Preliminary Analysis
In Step 2, find your score in the ranges presented and consult the analytical guidance. This is preliminary, as the analytical guidance will be refined in the next steps.

Step 3. Consider the Impact of Government Size, Budget Practices, and Borrowing Capacity
In Step 3, you consider additional drivers of fund balance: government size, budget practices, and borrowing capacity. In each blue box, enter the indicated number of positive or negative points for each driver (totaling them for each driver, as might be needed).

Size of Government. GFOA's analysis of the thousands of governments that participate in GFOA's comprehensive annual financial report presentation award program shows a very weak direct relationship between population size and size of fund balance. In fact, a statistical analysis of the data shows that although there is an inverse relationship between population size and size of fund balance, only about between 10% and 20% of the variation in fund balance size between governments can be explained by population.[i] Hence, the sheet only provides points for the very largest and smallest governments.

Budget Practices. The presence of formal or informal contingencies already built into the budget may relieve the need to carry some additional reserves. The finance officer can search directly for the presence of informal contingencies by searching prior years' budget-versus-actual reports for areas with consistent positive variances – this may indicate areas that are consistently over-budgeted. The finance officer can also look indirectly for contingencies by examining the budgeting system for practices that unintentionally encourage informal contingencies. For example, systems that provide little flexibility for managers to transfer budgets between different accounts will
encourage managers to build additional slack into their budget since they do not have the ability to move surpluses in one account to counteract a deficit in another.

Borrowing Capacity. You can evaluate your borrowing capacity by comparing your current level of debt against your financial policy for debt. If no policy standards are in place, consider the rating agency guidelines below.

Standard and Poor's Debt Ratios and Ranges[ii]

	Overall Net Debt per Capita	**Overall Net Debt as a % of Market Value**	**Debt Service as a % of Expenditures**
Low	Below $1,000	Below 3%	Below 8%
Moderate	$1,000 - $3,000	3% - 6%	8% - 15%
Moderately High	$3,000 - $5,000	6% - 10%	15% - 20%
High	Above $5,000	Above 10%	Above 25%

The finance officer should also consider internal borrowing capacity. Inventory reserves in other funds and assess the extent to which these reserves are necessary to deal with the risks with which these funds are faced. If other funds have sizable reserves compared to the risks they are retaining, they could serve as an alternative to larger general fund reserve targets. However, internal borrowing should not be considered an alternative without a strong internal borrowing policy in place.

Step 4. Consider the Impact of Commitments/Assignments, Outsider Perceptions, and Political Support

In Step 4, you consider the drivers of Commitments/Assignments, Outsider Perceptions, and Political Support. Put an "X" in the blue cell next to all the statements that apply to you.

Commitments or Assignments. Think about all assignments and commitments that impact fund balance. Then assess how constraining those assignment and commitments are and how available that portion of the fund balance might be to retain risk. For instance, a board might "commit" a certain amount to a "rainy day" reserve. This sort of commitment would be very consistent with the purpose of retaining the types of risk defined in this analysis, and so could be considered part of the total amount of general fund balances available for a reserve. Conversely, an assignment or commitment for asset maintenance or a special project is intended to be spent on a particular use, and therefore is not really available for risk retention. These sorts of uses should be subtracted from the definition of fund balance available for a reserve.

Outsider Perceptions. Take stock of relevant outsider perceptions. What have rating agencies said in the past about your level of reserves? Could failure to carry a certain level of reserves contribute to a ratings downgrade? Also consider citizen perspectives – ould having too high of a reserve provoke a backlash? Take these perceptions into account when settling on a final reserve target.

Political Support. A reserve target must be formally adopted by the board in order to do much good. Therefore, consider what might lead to a politically acceptable target level. For instance, governing boards often place great weight on benchmarking studies with similar organizations – a proposed target might garner more support if it is seen as consistent with the practices of comparable governments.

Step 5: Putting It All Together

The green cell contains a revised risk score, which takes account of your point totals from Step 3. Using this revised score, revisit the ranges and analytical guidance in Step 2.

Also, consider the boxes you checked in Step 4. Add the advice from these statements to your final analytical guidance from Step 2. Using this advice, you can finalize a reserve target and present it to the board.

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[i] The range comes from using different permutations of the data set, such as removing or including certain outliers.
[ii] The ratios are taken from David G Hitchcock, Karl Jacob, and James Wiemken, "Key General Obligation Ratio Credit Ranges – Analysis vs. Reality," Standard & Poor's: 2008. However, the ranges have been modified slightly by the authors to provide a more streamlined presentation. Specifically, in the original document, the overall net debt per capita "low" range is $1,000 to $2,000 and the "moderate" range is $2,000 to $5,000.

Vulnerability to Extreme Events

1. Identify Risks

What extreme events are you at risk for?

A	Fire
B	Flood
C	Drought
D	Earthquake
E	Pandemic

2. Assess Risks

What is your vulnerability to each extreme event, given past experience?

A	Moderate
B	High
C	High
D	Low probability; depending on epicenter, losses could be significant
E	Moderate this only happens about every 100 years, but high impact

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk (i.e., manage it without reserves)

A	FEMA reimbursement
B	FEMA reimbursement
C	State drought relief, possible FEMA reimbursement
D	FEMA reimbursement
E	Federal Funds possible, such as CARES, ARPA

Note: While significant reimbursements from FEMA are likely, it is also likely that there will be significant lags between when recovery costs are incurred and when payments will be received. Lastly, based on experiences in other cities, even under the best of circumstances, it is unlikely that the City will be reimbursed for all recovery costs. And even where costs are largely recovered, there is no reimbursement for lost revenues - like sales tax and TOT - during the disaster and recovery period.
The same is also true for pandemic respne and lost revenues.

4. Considering the above, how important for you is it to retain the risks of extreme events through reserves ?

4 < Enter your score here

5 **Very important.** We are subject to extreme events of severe potential magnitude which would require a quick and decisive response from our government. There are few alternative risk management approaches.

4 **Important.** We are subject to extreme events of severe potential magnitude, but our government does not have an important disaster response role and/or we have other risk management alternatives.

3 **Neutral.** We do not face an unusually high or low level of risk from extreme events.

2 **Unimportant.** We are subject to one or two types of significant extreme events and we have other risk management options.

1 **Very unimportant.** We are subject to very few, if any, potential extreme events of significant potential damage

Appendix B: GFOA Structured Assessment Methodology

Revenue Source Stability

1. Identify Risks

What are your major revenue sources?

A	Property Tax (38%)
B	TOT (20%)
C	Sales Tax (17%)
D	Franchise Fees (6%)
E	Permits/Service Charges (4%)
F	State Takeaways (Always a Threat)

Note: Top 3 revenues account for about 75% of total

2. Assess Risks

How stable are your revenue sources?

A	Historically stable but subject to State takeaways
B	Subject to significant swings with economy
C	Subject to significant swings with economy
D	Fairly stable
E	Subject to swings based development activity
F	Significant in the not so distant past

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk (i.e., manage it without reserves)

Limited in all cases

4. Considering the above, how important for you is it to retain the risks of revenue instability through reserves ?

4	< Enter your score here
5	**Very important.** We rely on just one or two sources of revenue, and they are unstable
4	**Important.** We rely on unstable sources for a significant portion of our revenue and/or have particular unstable payers as part of our tax base (e.g., sales tax from an industry with volatile sales)
3	**Neutral.** We do not face an unusually high or low level of risk from revenue instability
2	**Unimportant.** While some portion of our revenue base has instability, the majority of revenues are pretty stable.
1	**Very unimportant.** Our revenues are very stable and diverse.

Expenditure Volatility

1. Identify Risks

What are sources of potential expenditure spikes?

A	Increased pension costs
B	Unexpected infrastructure repairs
C	Sheriff Contract
D	State/federal mandates

2. Assess Risks

What is the potential cost of these spikes?

A	Based on volatile CalPERS investment yields and approved funding methodology changes, very high
B	Unknown
C	Moderate
D	Moderate

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk of these potential spikes? (i.e., manage it without reserves)

A	Need to address on ongoing basis
B	Unknown
C	Very Limited: Few Options
D	Very limited (legislative advocacy)

4. Considering the above, how important for you is it to retain the risks of expenditure spikes through reserves ?

4 < Enter your score here

5	**Very important.** There are expenditure spikes with very high potential to open a significant hole in our budget.
4	**Important. We are subject to important potential expenditure spikes, such that we need reserves but we also have other risk mitigation approaches available.**
3	**Neutral.** We do not face an unusually high or low level of risk from expenditure spikes
2	**Unimportant.** There are one or a few potential spikes but the risk of them occurring is low, the impact not great and/or we have other risk management options.
1	**Very unimportant.** We have no important risk from expenditure spikes.

4

Leverage

1. Identify Risks

What are major sources of leverage you are subject to?

A	Pension liabilities
B	
C	
D	

2. Assess Risks

What are the implications of leverage for the organization's financial flexibility?

A	Higher future costs
B	
C	
D	

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk of leverage? (i.e., manage it without reserves)

A	Need to address these higher cost on an ongoing basis: reserves not an appropriate source of funding
B	
C	
D	

4. Considering the above, how important for you is it to retain the risks of leverage through reserves ?

3	< Enter your score here
5	**Very important.** We are subject to significant leverage and have no other risk management approach
4	**Important.** We are subject to significant leverage and do not have equally significant offsetting risk management approaches.
3	**Neutral.** We do not face an unusually high or low level of risk from leverage
2	**Unimportant.** We have one or two sources of leverage, but these are largely addressed with other risk management strategies.
1	**Very unimportant.** We have no important sources of leverage that aren't already managed with out reserves.

Appendix B: GFOA Structured Assessment Methodology

Liquidity

1. Identify Risks

What are your major sources of potential intra-period cash imbalances?

A	Property tax collections in December and June (38% of revenues): see cash flow worksheet
B	Gas and electric franchise payments in April
C	TOT uneven during year
D	Continued federal grants at 2021-22 level unlikely

2. Assess Risks

How likely are these risks to occur and what is their potential magnitude?

A	Ongoing for all
B	
C	
D	

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk of liquidity? (i.e., manage it without reserves)

A	Tax/revenue anticipation notes - but results in added interest costs
B	Borrow from other funds - but adds "leverage" to them
C	

4. Considering the above, how important for you is it to retain the risks of liquidity spikes through reserves ?

5 < Enter your score here

5 **Very important.** We have very important potential intra-period imbalances with few risk management alternatives.

4 **Important.** We have important potential intra-period imbalances, but do have some off-setting risk management alternatives.

3 **Neutral.** We do not face an unusually high or low level of risk from intra-period cash imbalances.

2 **Unimportant.** We have some minor potential intra-period cash imbalances.

1 **Very unimportant.** Our cash flows are very stable.

Appendix B: GFOA Structured Assessment Methodology

Other Funds Dependency

1. Identify Risks

What other funds rely on the general fund for an important part of their funding?

A	CIP, Park Maintenance, Recreation, ROW (506,500 in 2021-22, about 5% of budget
B	
C	

2. Assess Risks

How likely is it that these funds will need the general fund to "backstop" them in an emergency?

A	High
B	
C	

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk of other funds' dependency? (i.e., manage it without reserves)

A	Very limited
B	
C	

4. Considering the above, how important for you is it to retain the risks of other fund dependency through reserves ?

5 < Enter your score here

5 **Very important.** A number of funds rely on the general fund for backstopping, with few, if any, risk management alternatives.

4 **Important.** We have at least some funds that rely on the general fund and this includes reliance for backstopping.

3 **Neutral.** We do not face an unusually high or low level of risk from other fund dependency.

2 **Unimportant.** There are a small number of funds that rely on the general fund, and the potential for the general fund to need to backstop them is small.

1 **Very unimportant.** No other funds rely on the general fund for backstopping.

Appendix B: GFOA Structured Assessment Methodology

Growth

1. Identify Risks

What are potential major sources of growth in the next three to five years?

A Limited new development opportunities

2. Assess Risks

What is the potential for these sources of growth to cause imbalances in the revenue received from the growth and the expenditures needed to serve it?

A Limited

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk of growth? (i.e., manage it without reserves)

A Limited, if significant growth does occur

4. Considering the above, how important for you is it to retain the risks of growth through reserves ?

2 < Enter your score here

5 **Very important.** We expect significant growth with imbalances in the timing of revenues and expenditures

4 **Important.** We have some growth that will cause imbalances in the timing of revenues and expenditures.

3 **Neutral.** We do not face an unusually high or low level of risk from growth

2 **Unimportant.** We have a small potential for future growth and/or only minor potential imbalances in the timing between revenues and expenditures.

1 **Very unimportant.** We expect no growth or growth will fully pay for itself as expenditures are incurred.

Population as of January 1: Last Ten Years

2021	13,196
2020	13,268
2019	13,314
2018	13,437
2017	13,485
2016	13,928
2015	13,798
2014	13,442
2013	13,099
2012	13,076

Source: State of California, Department of Finance, Demographic Research Unit
http://www.dof.ca.gov/Forecasting/Demographics/Estimates/

Capital Projects

1. Identify Risks

What high priority capital projects don't have a funding source?

A	The City has a significantly underfunded CIP
B	
C	

2. Assess Risks

What is the likelihood that reserves will be looked to as a funding source for the project?

A	Likely
B	
C	

3. Identify other risk mitigation approaches

What options do you have to avoid, reduce, or transfer the risk of capital projects using reserves as a funding source? (i.e., manage it without reserves)

A	Not applicable
B	
C	

4. Considering the above, how important for you is it to retain the risks of unfunded capital projects through reserves ?

5	< Enter your score here
5	**Very important.** There are very high profile projects with out a funding source and reserves are likely to be considered as a funding source.
4	**Important.** There are at least some high profile projects where reserves may be called upon to provide at least some of the funding.
3	**Neutral.** We do not face an unusually high or low level of risk from unfunded high-priority projects
2	**Unimportant.** High priority capital projects will probably have funding sources, if they don't already.
1	**Very unimportant.** All high priority capital projects have funding sources.

Appendix B: GFOA Structured Assessment Methodology

Guiding Your Selection of a Fund Balance Target

Step 1. Determine your total score from the risk factors

32	Your total score from the risk factors (calculated if you entered a score in other sheets)

Step 2. Preliminary Analysis

Compare your score from Step 1 to the guidelines below.

Your Score	*Analytical Guidance*
8 - 16	You face minimal risk to retain through reserves. Consider a target equal to the GFOA minimum recommended reserve of 16.6% of revenues/expenditures.
17-24	You face a low to moderate level of risk to retain through reserves. Consider adopting a reserve target somewhat higher than the GFOA minimum (e.g. 17-25% of revenues/expenditures). Since risk is low, do not invest excessive analytical effort in determining an exact target amount. Consider a short, informal benchmarking study with peer agencies to provide guidance.
25-31	You face a moderate to high level of risk to retain through reserves. Consider adopting a target amount of reserves significantly higher than the GFOA recommended minimum (e.g., 26 - 35%). Consider a short, informal benchmarking survey as a starting point, but then analyze your most significant risk factors to make sure they are adequately covered by what the survey suggests is reasonable.
32 - 40	You face a high level of risk to retain through reserves. Consider adopting a much higher target than the GFOA minimum (e.g., greater than 35%). Consider performing a more in-depth analysis of the risks you face to arrive at target level of reserved that provides sufficient coverage.

Step 3. Consider Impact of Government Size, Budget Practices, & Borrowing Capacity

For each driver pick which description best fits you and enter the appropriate number of points.

2	**Government Size**
+2	We are under 50,000 in population
0	We are between 50,000 and 300,000 in population
-4	We are over 300,000 in population

0	**Budget Practices**
-3	The budget has a formal contingency beyond what is being considered for this reserve.
-2	The budget has informal contingencies beyond what is being considered for the reserve.
0	The budget is lean and has no contingencies in it.

-2	**Borrowing Capacity**
-3	We have excellent external and internal borrowing capacity, including a good rating, little existing debt, and political will to use it.
-2	We have some external and/or internal borrowing capacity and political will could be mobilized to use it.

0 We have little or no borrowing capacity.

Step 4. Consider Impact of Commitments/Assignments, Outsider Perceptions & Political Support

Place an "X" next to each statement that applies to you.

Commitments and Assignments

x	We have commitments or assignments that designate fund balance for uses other than retaining the types of risk described in this analysis. If so, these commitments/assignments should not be included in the total reserve used to reach your target.

Outsider Perceptions

	Rating agencies have given us a target level of reserve for getting a good rating. If so, use that target in place of or in addition to a benchmarking survey to provide guidance on starting point for your target.
	The public is likely to question reserve levels as too high. If so, be sure to document your analysis findings in the other sheets.

Political Support

	The governing board places great weight on the policies of comparable jurisdictions. If so, conduct a benchmarking survey that includes governments the board perceives as relevant.
	The board places great weight on rating agency recommendations. If so, tie the reserve target recommendation to rating agency recommendations or standards.
	The board places great weight on GFOA recommendations. If so, use this analysis and GFOA's Best Practices to support your recommendation.

Step 5. Putting it All Together

A. Consider your adjusted risk score and re-consult the analytical guidance.

32	< Your adjusted risk score (risk score modified with results from Step 3)

B. Review results of Step 4.

Review each item you checked from Step 4 and add the advice to your analytical guidance.

C. Proceed with finalizing target

Proceed with setting a final reserve target based on analytical guidance.

Appendix C. City of Carpinteria General Fund Cash Flow: 2021-22 Budget

	Total	% Total	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
REVENUES/SOURCES														
Property Tax	4,405,300	38%						2,202,650						2,202,650
Sales Tax	1,935,000	17%	161,250	161,250	161,250	161,250	161,250	161,250	161,250	161,250	161,250	161,250	161,250	161,250
Franchise Fees	696,500	6%	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	215,250	43,750	43,750
TOT	2,300,000	20%	234,604	68,893	116,494	223,226	376,488	60,613	51,584	243,703	57,107	149,623	248,447	469,209
From Other Governments	1,627,000	14%	35,583	35,583	35,583	35,583	35,583	35,583	35,583	35,583	35,583	35,583	35,583	1,235,583
Permit/Service Charges	503,600	4%	41,967	41,967	41,967	41,967	41,967	41,967	41,967	41,967	41,967	41,967	41,967	41,967
Other Revenues	124,200	1%	10,350	10,350	10,350	10,350	10,350	10,350	10,350	10,350	10,350	10,350	10,350	10,350
Total Revenues/Sources	11,591,600	100%	527,504	361,793	409,394	516,126	669,388	2,556,163	344,484	536,603	350,007	614,023	541,347	4,164,759
ANNUALCOSTS														
Operating														
Insurance	434,700	4%	434,700											
Other Operating	10,721,100	88%	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425
Total Expenditures	11,155,800	91%	1,328,125	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425	893,425
Transfers Out	1,096,500	9%	91,375	91,375	91,375	91,375	91,375	91,375	91,375	91,375	91,375	91,375	91,375	91,375
Total Costs	12,252,300	100%	1,419,500	984,800	984,800	984,800	984,800	984,800	984,800	984,800	984,800	984,800	984,800	984,800
NET SOURCES	(660,700)	-	(891,996)	(623,007)	(575,406)	(468,674)	(315,412)	1,571,363	(640,316)	(448,197)	(634,793)	(370,777)	(443,453)	3,179,959
Cummulative Net	(660,700)		(891,996)	(1,515,002)	(2,090,409)	(2,559,083)	(2,874,495)	(1,303,132)	(1,943,448)	(2,391,645)	(3,026,437)	(3,397,214)	(3,840,667)	(660,708)
% OF ANNUAL COSTS			**-7%**	**-12%**	**-17%**	**-21%**	**-23%**	**-11%**	**-16%**	**-20%**	**-25%**	**-28%**	**-31%**	**-5%**