THE CITY OF SAN DIEGO

DATE: December 30, 2010

TO: **Wally Hill, Assistant Chief Operating Officer**

FROM: Eduardo Luna, City Auditor

SUBJECT: **Managed Competition Cost Comparison Tool Testing**

Introduction

In accordance with the City Auditor's FY2011 Audit Workplan, we have conducted an audit of the Managed Competition Cost Comparison Tool. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

On October 1, 2010, the City Administration requested the City Auditor's Office assistance and expertise in reviewing the mechanism and principals that drive the Managed Competition Cost Comparison Tool (CCT). The City's Business Office designed the Cost Comparison Tool (CCT) as part of its effort to help outsource City functions. According to City Administration, the tool was submitted to our office as a draft, and it was understood that final changes and tests were being made to update the tool to include SAP-related terminology and resources. The costing tool is an essential part of calculating the cost requirements during each phase of the Managed Competition process. Managed competition requires the City to calculate the baseline cost of the organization, determine the estimated cost of the government's proposal, and conduct a fair and transparent cost comparison between the Employee Proposal Team's (EPT) proposal and proposals from independent service providers. The Business Office developed the CCT to assist departments in calculating baseline cost estimates of EPT proposals and perform the cost comparison during source selection.

This review includes recommendations on how to make the tool more objective and factual in calculating cost comparisons. The review of the CCT is specifically focused to test the CCT for appropriateness, accuracy, and user-friendliness. We thank and commend the City Administration, especially the Business Office, for taking a proactive approach in reviewing this tool and providing ongoing collaboration. Their openness in reviewing this tool before deployment reduces the likelihood that our identified findings negatively impact the Managed Competition process.

Audit Objectives, Scope, and Methodology

The CCT will be an important part of the Managed Competition process. For Managed Competition to be effective, the CCT must accurately and transparently calculate the cost of employee proposals versus proposals from outside entities. We conducted this audit with the objective of ensuring accurate and transparent calculations across each component of the CCT workbook. The scope of this audit was limited to the CCT and corresponding user manual provided to our staff on October 15, 2010. To ensure the CCT will fulfill its purpose, we designed a scenario that tests the CCT's accuracy, appropriateness, and user-friendliness. Additionally, we conducted the following tests:

1. Verify that formulas reference appropriate cells.
2. Ensure that formulas are accurate in calculating costs.
3. Ensure that the summary and cost comparison tables accurately aggregate costs from other worksheets.
4. Review the CCT for user-friendliness, including how information is presented in the CCT.

Audit Results

In general, we found most sections of the CCT accurately calculate costs. However, the CCT also has a number of areas where cells are not referenced properly, formulas do not calculate the intended values, and information is not presented as clearly as it could be. The referencing and calculation errors cause the CCT to display an inaccurate cost estimate of the testing scenario. Appendix B through E detail specific issues within the CCT and contain suggested corrections to address them. The issues fell into one of three areas:

1. **The Managed Competition Cost Comparison Tool underestimates the costs of the Employee Proposal Team's bid and continuing government operations.**

   When the cost of the Employment Proposal Team (EPT) proposal is understated, the City will choose to keep service provision in-house that could be done at a lower cost by another provider. When continuing costs are understated, the city may outsource a service that could be provided at a lower cost by the City's employee team.

   The CCT does not properly annualize the expenses of a partial first year of provision. When partial year costs are not annualized correctly, the CCT applies the prorated cost to each subsequent year, which magnifies the impact of the inaccuracy. The formula should be adjusted so partial year costs for the first year are properly annualized for the second and subsequent years.

   The CCT also miscalculates contract management costs and subtracts the cost of government-furnished items from the employee proposal. The former causes the CCT to underestimate the continuing government costs associated with a proposal from an outside provider, while the latter makes the EPT proposal appear more favorable. The formula for contract management costs must be adequately adjusted so the CCT projects five years of expenses instead of just one. Additionally, the Business Office must ensure that the process for allocating expenses for government-furnished items and services does not make proposals incomparable when those expenses are added to the proposals of outside providers.

2. **Opportunities exist to increase the user-friendliness of the Managed Competition Cost Comparison Tool.**

   It is imperative the workbook be as clear and understandable as possible for users and evaluators. If the CCT is not a user-friendly document, users may incorrectly input or interpret information leading to an inaccurate cost assumption of the proposal. The CCT's user-friendliness is reduced because data is not reflected consistently in some worksheets, users are not made aware when additional information must be input, and the

comparison matrix does not allow users to easily compare the employee proposal to the proposals of outside entities.

3. **Misuse of the CCT could undermine the Managed Competition Process**

   The CCT is an Excel-based tool with several spreadsheets and preprogrammed formulas. Within the CCT itself, misuse can occur if the EPT is able to manipulate formulas or parameter sheet information to favor their proposal over proposals from independent service providers. Although the CCT was provided to our office without existing security measures for purposes of evaluating the tool, we would like to test how the existing protections will operate when they are engaged in order to determine if they adequately prevent users from changing data sources or the way cost calculations are made. Further, the City should establish a data validation process so as to provide a final check on the accuracy of each proposal submission.

   Recommendation #1

   The Business Office should consider making the recommended changes to improve the CCT's accuracy and user-friendliness (Priority 3).

   Recommendation #2

   The City Administration should apply the security provisions that lock and password-protect all cells in the workbook except the cells where the user is required to input information. Additionally, the City Administration should conduct verification testing after proposers submit proposals to confirm the data validity of each proposal (Priority 3).

   If you have any additional questions regarding our analysis, please contact Chris Constantin, Assistant City Auditor, at (619) 533-3007.

   Eduardo Luna
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   Eduardo Luna
   City Auditor

Appendix A – Definitions of Priority 1, 2, and 3 Audit Recommendations

The Office of the City Auditor maintains a classification scheme applicable to audit recommendations and the appropriate corrective actions as follows:

Priority Class[1]	Description[2]	Implementation Action[3]
1	Fraud or serious violations are being committed, significant fiscal or equivalent non-fiscal losses are occurring.	Immediate
2	A potential for incurring significant or equivalent fiscal and/or non-fiscal losses exist.	Six months
3	Operation or administrative process will be improved.	Six months to one year

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[1] The City Auditor is responsible for assigning audit recommendation priority class numbers. A recommendation which clearly fits the description for more than one priority class shall be assigned the higher number.

[2] For an audit recommendation to be considered related to a significant fiscal loss, it will usually be necessary for an actual loss of $50,000 or more to be involved or for a potential loss (including unrealized revenue increases) of $100,000 to be involved. Equivalent non-fiscal losses would include, but not be limited to, omission or commission of acts by or on behalf of the City which would be likely to expose the City to adverse criticism in the eyes of its residents.

[3] The implementation time frame indicated for each priority class is intended as a guideline for establishing implementation target dates. While prioritizing recommendations is the responsibility of the City Auditor, determining implementation dates is the responsibility of the City Administration.

Appendix B - Referencing Corrections

#	Sheet	Cell	Issue	Suggested Correction	Impact
1	Global Values	D13	The projected CCT end date is not 5 years after the CCT start date	D13 should reference C12 rather than D12	
2	Equipment	Col. N	The date does not represent the start or end date of the proposal.	To represent the start date, column N should reference C12. To represent the end date, column N should reference D13 (only if #1 is addressed).	CCT does not say if a vehicle's life will expire during the program.
3	Supplies, Services, Rent, Travel, and Data Processing	H210 to H247	Prorates but does not account for inflation	These cells in column H should reference column F not column E so the values are both prorated and adjusted for inflation.	Required because of another recommendation
4	Equipment	Y210 to Y247	Prorates but does not account for inflation	The cells in column Y should reference column W not column V so the values are both prorated for a partial year and adjusted for inflation	Required because of another recommendation
5	Energy and Utilities	M210 to M247	Prorates but does not account for inflation	The cells in column M should reference column K not column J so the values are both prorated for a partial year and adjusted for inflation	Required because of another recommendation
6	Facility Cost	O210 to O247	Prorates but does not account for inflation	The cells in column O should reference column M not column L so the values are both prorated for a partial year and adjusted for inflation	Required because of another recommendation
7	Property and Capital	K210 to K247	Prorates but does not account for inflation	The cells in column K should reference column I not column H so the values are both prorated for partial year and adjusted for inflation.	Required because of another recommendation
8	Minor Items	G210 to G247	Prorates but does not account for inflation	The cells in column G should reference column F not column E so the values are both prorated for partial years and adjusted for inflation	Required because of another recommendation.

Appendix C – Formula Calculation Correction

#	Sheet	Cell	Issue	Suggested Correction	Impact
1	Classified Personnel	V248		V248 = SUM(V209:V247)	Required because of recommendation to improve user-friendliness (3)
2	Unclassified Personnel	L45	does not annualize cost for a partial year	L45 = N43/M4	Underreports cost
3	Unclassified Personnel	N248		N248 = SUM(N209:N247)	Required because of recommendation to improve user-friendliness (6)
4	Other Dept Staff	W41	does not annualize cost for a partial year	W41 = Y43/X4	Underreports cost
5	Other Dept Staff	Col. W	overhead charges are only included in grand total pay when a value is present in the manual override column	need to add +j6*v6 to the value if true segment of the if statement	Underreports cost
6	All calculations sheets (columns vary)	Row 43 or 39,	does not include inflation should there be inflation in FY1	The grand total cell should be the sum of the values in that column	Underreports cost
7	Other Dept Staff	Y219		Y219 = SUM(Y185:Y218)	Required because of recommendation to improve user-friendliness (8)
8	Supplies, Services, Rent, Travel, Data Processing	D45	does not annualize cost for a partial year	D45 = F43/E4	Underreports cost
9	Supplies, Services, Rent, Travel, Data Processing	F248		F248 = SUM(F209:F247)	Required because of recommendation to improve user-friendliness (9)
10	Supplies, Services, Rent, Travel, Data Processing	H45	does not annualize cost for a partial year	H45 = H43/E4	Underreports government furnished cost, which makes private bids more favorable
11	Equipment	U45	does not annualize cost for a partial year	U45 = W43/V4	Underreports cost
12	Equipment	W248		W248 = SUM(W209:W247)	Required because of recommendation to improve user-friendliness (10)
13	Equipment	Col. U	The annual loan/lease amount is not prorated for the % of a year the program uses the vehicle.	= S6 + IF(V4=1,T6,T6*V4) or note value must be prorated when entered	Overreports cost

14	Equipment	Y45	does not annualize cost for a partial year	Y45=(Y43/V4)…	Underreports government furnished cost, which makes private bids more favorable
15	Equipment	AA45	does not annualize cost for a partial year	AA45=(AA43/V4)…	Underreports government furnished cost, which makes private bids more favorable
16	Energy and Utilities	M45	does not annualize cost for a partial year	M45 = M43/J4	Underreports government furnished cost, which makes private bids more favorable
17	Energy and Utilities	I45	does not annualize cost for a partial year	I45 = K43/J4	Underreports cost
18	Energy and Utilities	K248		K248 = SUM(K209:K247)	Required because of recommendation to improve user-friendliness (5)
19	Facility Cost	K45	does not annualize cost for a partial year	K45 = M45/L4	Underreports cost
20	Facility Cost	O45	does not annualize cost for a partial year	O45 = O43/L4	Underreports government furnished cost, which makes private bids more favorable
21	Facility Cost	M248		M248 = SUM(M209:M247)	Required because of recommendation to improve user-friendliness (11)
22	Property and Capital	G45	does not annualize cost for a partial year	G45 = I43/H4	Underreports cost
23	Property and Capital	K45	does not annualize cost for a partial year	K45 = K43/H4	Underreports government furnished cost, which makes private bids more favorable
24	Property and Capital	I248		I248 = SUM(I209:I247)	Required because of recommendation to improve user-friendliness (16)
25	Minor Items	I45	does not annualize cost for a partial year	I45 = I43/E4	Underreports government furnished cost, which makes private bids more favorable
26	Minor Items	D45	does not annualize cost for a partial year	D45 = F43/E4	Underreports cost
27	Minor Items	F248		F248 = SUM(F209:F247)	Required because of recommendation to improve user-friendliness (13)
28	Continuing Gov Org	V248		V248 =SUM(V209:V247)	Required because of recommendation to improve user-friendliness (14)

Appendix D – Summary and Comparison Tables Corrections

#	Sheet	Cell	Issue	Suggested Correction	Impact
1	Comparison Matrix	Row 29	The value for contract management staff is equal only to the base cost times inflation	needs to be the sum of contract management costs for each year under consideration plus inflation. This change should be made in the "contract staff" tab	Underreports costs of managing a contract giving an advantage to the private bid
2	Comparison Matrix	B31	If the EPT proposes selling equipment, it does not go in as a credit.	B32 = -B31 or gray out B31 so all selling is done in the calculation sheets and is considered in the NPE costs	
3	Comparison Matrix	B31	When a value is entered into this cell, values automatically show up in the continuing cost section of this column even though those costs would not be incurred since this is the EPT bid	If the formula for B32 = -B31, this will not be an issue because B34 will still be less than 0. The other option would be to paint these cells dark gray and remove the formula from them	makes EPT proposal appear more expensive
4	Comparison Matrix	B47	The cell does not equal the grand total of the EPT bid just the total for continuing costs	B47 = B23+B34+B45	Cannot compare total costs of proposals
5	Comparison Matrix	B34	The cell does not display the new total cost after adjustments, only the total adjustments to the EPT proposal.	B34 = B32 +B23	
6	Comparison Matrix	Row 43	Is the annual performance evaluation amount in the global values for the life of the bid or for each year?	If it is for each year, the formula must include the base value for each FY (including partials) and account for inflation	True cost estimates are underreported. As far as choosing between the EPT and a private bid, the impact is negligible because the same error occurs across all bids.
7	Comparison Matrix	B10 to B20	Why is the value of government furnished items or services subtracted from the cost?		Comparing grand totals is not comparing apples to apples when the private bids have to pay and the EPT does not.

Appendix E – User-Friendliness Improvements

#	Sheet	Cell	Issue	Correction
1	All	Row 3	The purpose of the grand total row is unclear	Include a value in this row only if the value is adjusted for inflation and takes into account partial years
2	FYS	Col. B	The end date for each fiscal year is one year too late.	Reduce the year by 1 for each value
3	Classified Personnel	Col. V	Unclear	Prorate for the partial year in Column U and adjust for inflation in Column V
4	Energy and Utilities	Col. G	costs per sq. foot appear not to calculate correctly	Format the column to show two decimal places
5	Energy and Utilities	Col. K	Unclear	Prorate for the partial year in Column J and adjust for inflation in Column K
6	Unclassified Personnel	Col. N	Unclear	Prorate for the partial year in Column M and adjust for the inflation in Column N
7	Other Dept Staff	Col. V	Overhead charges may not be in the correct format from the source sheet.	Put all overhead rates in % form in the source sheet.
8	Other Dept Staff	Col. Y	Unclear	Prorate for partial year in Column X and adjust for inflation in Column Y
9	Supplies, Services, Rent, Travel, Data Processing	Col. F	Unclear	Prorate for partial year in Column E and adjust for inflation in Column F
10	Equipment	Col. W	Unclear	Prorate for partial year in Column V and adjust for inflation in Column W.
11	Facility Cost	Col. M	Unclear	Prorate for partial year in Column L and adjust for inflation in Column M
12	Property and Capital	Col. F	added step	If a capital project is prorate for months in in one year, the remaining months of the year must be accounted for in the subsequent year. (i.e. if something is prorated for 6 months in FY3, then it must be entered for an additional 6 months in FY4 so the cost is annualized.
13	Minor Items	Col. F.	Unclear	Prorate for partial year in Column E and adjust for inflation in Column F

14	Continuing Gov Org	Col. V	Unclear	Prorate for partial year in Column U and adjust for inflation in Column V.
15	Equipment	Col. P	added step	If a vehicle's use is prorated for the number of months it will be used in a fiscal year should change, that must be added (or subtracted) in a subsequent FY. It does not automatically switch to 12.
16	Property and Capital	Col. I	Unclear	Prorate for partial year in Column H and adjust for inflation in Column I
17	Any personnel sheet	UAAL	Will UAAL be used in any calculations?	

Appendix F – Management Response

THE CITY OF SAN DIEGO

DATE: December 29, 2010

TO: Eduardo Luna, City Auditor

FROM: Wally Hill, Assistant Chief Operating Officer

SUBJECT: City Auditor request for changes to the Cost Comparison Tool

On October 1, 2010, The Business Office requested your assistance in reviewing and evaluating the Cost Comparison Tool (CCT) that will be used by the Managed Competition Independent Review Board (MCIRB) to compare all bids including the City's employee proposal. The request was for your staff to test every function and formula within the CCT to ensure that the tool conformed with the City's Managed Competition guidelines. Your department provided a preliminary report to our office on December 17.

We have reviewed your comments and have made changes to the tool and also to the guidelines used to populate the tool to address most of your observations where applicable. The CCT tool was developed over a couple of years and we recently were in the process of updating it to meet new SAP principles before we submitted the tool for your review knowing that we had not finalized our internal quality review process. Also, the security features within the tool were disabled for your use and freedom to access any field within the tool. The security features we have incorporated will be activated prior to implementing the tool.

Attachment A summarizes all of the changes made to the CCT based on your initial request. In short, most of the recommendations made have been implemented exactly as you have requested. Very few recommendations were implemented using a modified approach. A fewer number were not implemented but we are providing a justification for your consideration. We are also resubmitting the costing tool guidelines that will be used to populate the tool and we are highlighting the text where we addressed some of the issues you discuss in your review.

We appreciate the efforts made by your department in reviewing and testing this critical piece of the managed competition process. We also would like to request that you confirm that all of the changes and recommendations have been implemented by reviewing the tool and instructions again. Lastly, we are providing you the tool with and without security so that you can validate the security features we have considered for the tool.

Please contact Joseph Walker at (619) 533-3978 if you have additional concerns our office should evaluate before the CCT tool is finalized and implemented.

Wally Hill

Attachment: Cost Comparison Tool summary of changes

DIVERSITY

Attachment A

Cost Comparison Tool Summary of Changes

Item	Action	Justification
Appendix B:	*Referencing Corrections*	
1	**Corrected**	Automatically corrected with a separate correction
2 thru 8	**Corrected**	Changes made based on City Auditor recommendations
Appendix C:	*Formula Calculation Corrections*	
1 and 3	**Modified formula**	Formula was modified to capture the request from the audit but adjusted to prevent values from affecting the totals if user enters values by error
13	**Modified formula**	Formula was modified to capture the request from the audit but adjusted to prevent values from affecting the totals if user enters values by error
2; 4-12; 14-28	**Corrected**	Changes made based on City Auditor Recommendations
Appendix D:	*Summary and Comparison Tables Corrections*	
1	**Corrected**	Changes made based on City Auditor recommendations
2-3; 5; 7	**Corrected**	Changes made based on City Auditor recommendations
4	**None**	Formula auto corrected based on corrections made elsewhere in tables
6	**Corrected**	Language clarifies the requirement to enter five year value in the field
Appendix E:	*User-Friendliness Improvements*	
1	**None**	Values are helpful when crosschecking results across tabs
2	**Corrected**	Changes made based on City Auditor recommendations
3-6; 8-11; 13-14; 16	**Modified**	Changes were made to the 6th year only. All other formulas are accurate
7	**Corrected**	Changes made based on City Auditor recommendations
12; 15	**Corrected**	Clarification will be made in user guide
17	**None**	UAAL values will be removed from personnel costs per the Managed Competition Guidelines. The actual subtraction will be reflected in the tool as part of the calculations.