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CITY OF

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**PORTLAND, OREGON**

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BUREAU OF WATER WORKS

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**Randy Leonard, Commissioner**  
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Date: January 14, 2011  
To: Mayor Sam Adams  
From: Commissioner Randy Leonard  
Subject: Executive summary for the FY 2010-11 Winter BuMP

Enclosed is the Water Bureau's FY 2010-11 Winter BuMP Report that includes the status of the three funds.

The following is a brief recap of the Bureau's requests for the Winter BuMP:

- Increased Interagency with Portland Office of Emergency Management by \$7,000 to cost share the WEB EOC software.
- Increase water discharge budget by \$44,590 to correct a billing error in FY 2008-09 and FY 2009-10.
- Increase interagency with the Revenue Bureau by \$7,700 for check scanning related to the leaf removal program.
- Transfer \$165,000 for the Future Connect Scholars program with the Bureau of Environmental Services.
- Increase the interagency with the Parks Bureau by \$20,000 for services provided on the Powell Butte project.

If you have any questions regarding this report, please contact Mary Leung at 823-7551.

Attachment

c: David Shaff, Water Bureau Administrator  
Dave Hasson, Finance & Support Services Director

File: 602000 Winter 10-11 CommLetter.doc

# BUDGET AMENDMENT REQUEST

Portland Water Bureau

PERIOD Winter BuMP

FISCAL YEAR FY 2010-11

## **WA\_007 - Interagency with Portland Office Emergency Mgmt**

Increase the Interagency with Portland Office of Emergency Management by \$7,000 to cost share maintenance on the WEB EOC software.

Dollar Amount: \$0  
Type: New Request  
Resources: Bureau Contingency

## **WA\_008 - Water discharge correction**

Increase water discharge budget by \$44,590 to correct a billing error for reservoir and tank flushing discharge for FY 2008-09 and FY 2009-10.

Dollar Amount: \$0  
Type: New Request  
Resources: Bureau Contingency

## **WA\_009 - Interagency with the Revenue Bureau**

Increase the interagency with the Revenue Bureau for payment processing and scanning checks and payment stubs by \$7,700 associated to the leaf program.

Dollar Amount: \$7,700  
Type: New Request  
Resources: New Revenues

## **WA\_010 - Future Connect Sholarship Program**

Transfer \$165,000 for the Future Connect Scholars program that is related to the Bureau of Environmental Services and Water Services.

Dollar Amount: \$0  
Type: New Request  
Resources: Bureau Contingency

## **WA\_011 - Interagency with the Parks Bureau**

Increase the interagency with the Parks Bureau by \$20,000 for service provided on the Powell Butte project.

Dollar Amount: \$0  
Type: Technical Adjustment  
Resources: Internal Transfer

**FY 2010-11 Portland Water Bureau  
Winter BuMP  
Budget Note**

**Rate Setting Approval Process**

To fulfill a request by the Public Utilities Review Board (PURB), BES and Water are directed to hire a consultant to report back on best practices for the sewer/stormwater utility and water utility rate setting approval process. Total consultant contract costs should not exceed \$30,000 and should be funded with BES paying \$21,000 and Water paying \$9,000. This is a PURB request.

**Winter BuMP Update (7/1/10 to 11/30/10)** The Water Bureau and the Bureau of Environmental Services have hired a consultant to determine best practices for utility rate setting approval processes. The study is in progress, and a final report is anticipated to be available by March 2011.

**Future Connect Scholars Program**

To prevent rate increases, administrative savings that accrue to the Bureau of Environmental Services and the Water Bureau as a result of FY 2010-11 reductions in internal service charges from the Office of Management and Finance shall be used to fund the portion of the Future Connect Scholars program that is related to BES and Water services.

**Winter BuMP Update (7/1/10 to 11/30/10)** To prevent rate increases, administrative savings that accrue to the Bureau of Environmental Services and the Water Bureau as a result of FY 2010-11 reduction in internal service charges from the Office of Management and Finance shall be used to fund the portion of the Future Connect Scholars program that is related to BES and Water Services.

## **FY 2010-11 Portland Water Bureau Service Improvement Plan:**

### **Pump and Control Maintenance**

The bureau continues to expand its ability to maintain public assets by taking advantage of new technologies and improvements in work flow processes through asset management. The greatest financial asset of any community is its infrastructure, installed primarily by previous generations. Worth far beyond any current budget, the bureau has the responsibility to prolong, maintain, and repair the water system for the public good. Today, rapidly changing technologies can help offset the deterioration of our aging infrastructure.

Improvements to Pump and Control Maintenance include better resource management through use of a computerized maintenance management system (CMMS), prioritization of corrective maintenance tasks, refinement of standard operating procedures, reductions in administrative data entry, expanded data collection with better accuracy and precision; and the analysis of asset risk, probability of failure and replacement schedules.

The bureau continues to perform Reliability Center Maintenance (RCM) at its pump stations. For electrical inspections this includes prioritizing preventative maintenance tasks by utilizing new technologies such as thermography, networked electrical monitoring, and PGE electronic metering. Additional networked electrical monitoring units will be purchased and installed through FY 2010-11. This will allow electricians to troubleshoot system failures. It will be a valuable tool for trending and predicting failures as well as obtaining energy usage data in real-time, which can be used to determine replacements or maintenance needs to improve energy efficiency.

For mechanical inspections, the bureau updated its vibration analysis software in FY 2009-10 and initiated routine oil analysis through an independent laboratory. This is also a valuable tool for trending and predicting failures, as well as allowing for prioritization of maintenance work on pumps and motors through the use of empirical data.

The bureau intends to streamline its work flow processes further in FY 2010-11 through the use of wireless field entry. Not only will this reduce paper waste, but it will eliminate double time entry, allow for capture of failure codes and condition assessments, and access to documentation in the field for troubleshooting failures.

Cathodic protection for all 33 steel tanks is being planned by Engineering Services Design Engineers at an average cost of \$35,000 per tank. This work began in FY 2008-09 and is scheduled for three tanks per year for 11 years.

### **Winter BuMP Update (July 1 to November 30, 2010)**

The Portland Water Bureau (PWB) is in the process of drafting a formal document which details the steps associated with RCM. Empirical results for RCM will be highlighted at Sam Jackson Pump Station and 162<sup>nd</sup> Pump Station as part of the Pump Station Asset Management Plan.

As for electrical maintenance, new power monitors have been installed and connected to the Water Control Center for remote monitoring at the Groundwater Pump Station (GWPS) pump gallery, GWPS Chemical Treatment facility, Greenleaf Pump Station, and Calvary Pump Station.

Vibration analysis is performed quarterly on pumps throughout the PWB, including those located at interactive fountains, city pump stations, and GWPS. The new vibration testing equipment is working well and has helped staff refine and tune harmonics to reduce damage to motors, bearings and rotating parts. During this reporting period, PWB completed all scheduled vibration analysis and oil analysis on 22 pumps. This predictive maintenance work resulted in subsequent work to perform needed oil changes, motor balancing, bearing replacements, pump and motor overhauls, and bearing lubrications.

During this reporting period the RFP for programming a mobile application for wireless field entry was finalized, approved and reviewed for publication by BTS and Purchasing. The RFP is expected to go out to bid in early January. When implemented, this will reduce paper waste, reduce data entry errors, eliminate double time entry, and allow for field access to asset data and maps, improving the efficiency of PWB's maintenance management work flow processes.

Also in this reporting period, all three Burlingame Tanks have had their impressed cathodic protection systems installed. The tanks will have their operational functional checks in January. Engineering is in the process of identifying which tanks will have cathodic protection systems installed next.

### **Bull Run Maintenance**

The bureau will continue the implementation of the pavement management system in order to efficiently use the funds available to the maximum benefit of the road system. This will consist of a continuation of the chip seal program that was started in FY 2008-09 as well as a detailed priority analysis of further maintenance and repair activities

### **Winter BuMP Update (July 1 to November 30, 2010)**

Work has been completed for the reconstruction of 4,000 lf of the S-10 road from the Larson's Intertie to the Scaling Station. The next phase of roadway reconstruction was advertised for bids in December 2010.

**FY 2010-11 Portland Water Bureau  
Service Improvement Plan:**

**Meters**

Obtain access to Cayenta and have this information available through the Large Meter Database and updated monthly. Recalculate the way that meter tests are estimated using proper allocation between low, medium and high flow rates. Develop criticality reports for management to be used in monitoring, maintenance and replacement of large meters.

**Winter BuMP Update (July 1 to November 30, 2010)**

The data needed to help improve in this area is unavailable to the Water Bureau. A report request for the data needed out of the Cayenta billing system was created and submitted to the Revenue Bureau Business Solutions Division back in June 2006. We have not received the necessary reports from them to date.

File: ..BuMP - Winter\FY10-11\ServiceImprovementPlan\_FY2010-11.doc

**FY 2010-11 Portland Water Bureau  
Winter BuMP Reporting  
Approved Decision Package for FY 2010-11 and prior BuMP Adjustments**

**Decision Package for FY 2010-11:**

No approved decision package for the Water Bureau

**Fall BuMP approved Adjustment:** Reductions were applied to a number of programs to align the budget to the funding of only the active projects. The adopted budget is \$72,676,000 and this request will reduce the CIP budget by \$12,108,000. Funds were also transferred to programs for projects continuing that experienced scheduled delays, primarily the Sandy River Conduit Relocation Project. In addition there is \$786,000 in grant funded capital projects.

**Winter BuMP Update:**

As of 11/30/2010, the capital program expenditures and schedules are consistent with revised the revised CIP implemented with the Fall BuMP. No additional delays have impacted the Sandy River Conduit relocation project and the grant funded work, particularly the Columbia South Shore Wellfield Improvements is on schedule.

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Hydroelectric Power Operating Fund</b>				
<b>EXPENDITURES</b>				
Personal Services	\$270,987	\$117,328	\$239,500	88%
External Materials and Services	\$196,500	\$5,630	\$104,100	53%
Internal Materials and Services	\$212,520	\$119,939	\$212,400	100%
Bond Expenses	\$14,608	\$3,314	\$14,608	100%
Fund Transfers - Expense	\$347,971	\$48,664	\$347,971	100%
Contingency	\$128,598	\$0	\$195,161	152%
<b>TOTAL EXPENDITURES</b>	<b>\$1,171,184</b>	<b>\$294,875</b>	<b>\$1,113,740</b>	<b>95%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$348,607	\$0	\$338,629	97%
Interagency Revenue	\$63,207	\$12,587	\$55,000	87%
Fund Transfers - Revenue	\$125,000	\$0	\$60,000	48%

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Hydroelectric Power Operating Fund</b>				
<b>REVENUES</b>				
Miscellaneous	\$634,370	\$52,379	\$660,111	104%
<b>TOTAL REVENUES</b>	<b>\$1,171,184</b>	<b>\$64,966</b>	<b>\$1,113,740</b>	<b>95%</b>

**Fund Projection Narrative**

Personal Services (88%)

Hydropower has not yet had to fill its budgeted part time computer programming position following the retirement of one of its staff members.

External Materials and Services (53%)

This under-expenditure variance is due to the fact that the budgeted amount includes a place holder for unidentified repair and replacement work for the Portland Hydroelectric project (PHP) and in FY2010-11, there have not been a lot of renewal and replacement projects required for the facilities of the PHP. Therefore, the expenditures from this Fund have ended up being less than budgeted.

Internal Materials and Services (100%)

No variance to report.

Bond Expenses (100%)

No variance to report .

Fund Transfers - Expense (100%)

No variance to report

Contingency (152%)

This variance is primarily due to Hydropower leaving one part-time position unfilled for the last half of the year, and then being very careful with its external M&S expenditures.

REVENUES

Budgeted Beginning Fund Balance (97%)

No variance to report

Interagency Revenue (87%)

Reflects the actual amount of work that Hydropower anticipates being asked to perform for Water.

Fund Transfer – Revenue (48%)

These cash transfers are made from Fund (No.618) to the Hydropower Operating Fund (No. 601) to pay for repair and replacement work at the Portland Hydroelectric Project (PHP) as those needs arise. This variance is due to the fact that the budgeted amount includes a place holder for unidentified work and in FY2010-11, there have not been a lot of renewal and replacement projects required for the facilities of the PHP. Therefore, the transfers from the Hydropower Renewal & Replacement Fund to the Hydropower Operating Fund have ended up being less than budgeted.

Miscellaneous Revenues (104%)

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Water Fund</b>				
<b>EXPENDITURES</b>				
Personal Services	\$58,863,038	\$28,462,838	\$58,555,038	99%
External Materials and Services	\$24,244,250	\$7,586,939	\$21,358,808	88%
Internal Materials and Services	\$19,964,389	\$9,050,757	\$21,069,137	106%
Capital Outlay	\$33,345,300	\$14,791,232	\$32,845,300	99%
Bond Expenses	\$2,510,765	\$449,049	\$2,511,215	100%
Fund Transfers - Expense	\$60,310,651	\$38,150,606	\$60,769,783	101%
Contingency	\$43,204,686	\$0	\$41,172,542	95%
<b>TOTAL EXPENDITURES</b>	<b>\$242,443,079</b>	<b>\$98,491,420</b>	<b>\$238,281,823</b>	<b>98%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$47,295,512	\$0	\$49,769,357	105%
Charges for Services	\$115,611,286	\$52,313,274	\$112,111,285	97%
Intergovernmental Revenues	\$451,000	\$529,867	\$451,000	100%
Interagency Revenue	\$2,445,896	\$1,249,201	\$2,438,196	100%
Fund Transfers - Revenue	\$75,859,111	\$32,292,929	\$72,763,110	96%
Miscellaneous	\$780,274	\$327,643	\$748,875	96%
<b>TOTAL REVENUES</b>	<b>\$242,443,079</b>	<b>\$86,712,914</b>	<b>\$238,281,823</b>	<b>98%</b>

## Fund Projection Narrative

External M&S - The \$2.9 million is anticipated expenditure reduction in operating expenses.

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Hydroelectric Power Operating Fund</b>				
<b>EXPENDITURES</b>				
Personal Services	\$270,987	\$117,328	\$239,500	88%
External Materials and Services	\$196,500	\$5,630	\$104,100	53%
Internal Materials and Services	\$212,520	\$119,939	\$212,400	100%
Bond Expenses	\$14,608	\$3,314	\$14,608	100%
Fund Transfers - Expense	\$347,971	\$48,664	\$347,971	100%
Contingency	\$128,598	\$0	\$195,161	152%
<b>TOTAL EXPENDITURES</b>	<b>\$1,171,184</b>	<b>\$294,875</b>	<b>\$1,113,740</b>	<b>95%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$348,607	\$0	\$338,629	97%
Interagency Revenue	\$63,207	\$12,587	\$55,000	87%
Fund Transfers - Revenue	\$125,000	\$0	\$60,000	48%

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Hydroelectric Power Bond Redemption</b>				
<b>EXPENDITURES</b>				
Unappropriated Fund Balance	\$4,429,990	\$0	\$4,451,694	100%
Bond Expenses	\$2,716,810	\$0	\$2,716,810	100%
<b>TOTAL EXPENDITURES</b>	<b>\$7,146,800</b>	<b>\$0</b>	<b>\$7,168,504</b>	<b>100%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$4,383,500	\$0	\$4,420,808	101%
Miscellaneous	\$2,763,300	\$209,852	\$2,747,696	99%
<b>TOTAL REVENUES</b>	<b>\$7,146,800</b>	<b>\$209,852</b>	<b>\$7,168,504</b>	<b>100%</b>

**Fund Projection Narrative**

EXPENDITURES

Unappropriated Fund Balance (100%)

No variance to report

Bond Expenses (100.0%)

No variance to report

REVENUES

Budgeted Beginning Fund Balance (101%)

No variance to report

Miscellaneous (99%)

No variance to report

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Water Bond Sinking</b>				
<b>EXPENDITURES</b>				
Unappropriated Fund Balance	\$16,596,038	\$0	\$16,603,463	100%
Bond Expenses	\$28,306,371	\$20,228,458	\$28,306,371	100%
<b>TOTAL EXPENDITURES</b>	<b>\$44,902,409</b>	<b>\$20,228,458</b>	<b>\$44,909,834</b>	<b>100%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$10,320,038	\$0	\$10,321,463	100%
Fund Transfers - Revenue	\$28,199,467	\$20,228,459	\$28,199,443	100%
Bond and Note	\$6,276,000	\$0	\$6,282,000	100%
Miscellaneous	\$106,904	\$30,575	\$106,928	100%
<b>TOTAL REVENUES</b>	<b>\$44,902,409</b>	<b>\$20,259,034</b>	<b>\$44,909,834</b>	<b>100%</b>

**Fund Projection Narrative**

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Water Construction Fund</b>				
<b>EXPENDITURES</b>				
Unappropriated Fund Balance	\$45,978,441	\$0	\$56,995,751	124%
Fund Transfers - Expense	\$76,183,069	\$32,292,929	\$73,087,206	96%
Contingency	\$11,427,460	\$0	\$11,427,460	100%
<b>TOTAL EXPENDITURES</b>	<b>\$133,588,970</b>	<b>\$32,292,929</b>	<b>\$141,510,417</b>	<b>106%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$33,224,757	\$0	\$40,592,066	122%
Charges for Services	\$2,000,000	\$629,657	\$2,000,000	100%
Fund Transfers - Revenue	\$24,051,255	\$12,503,937	\$24,536,255	102%
Bond and Note	\$73,949,000	\$0	\$74,018,000	100%
Miscellaneous	\$363,958	\$104,140	\$364,096	100%
<b>TOTAL REVENUES</b>	<b>\$133,588,970</b>	<b>\$13,237,733</b>	<b>\$141,510,417</b>	<b>106%</b>

**Fund Projection Narrative**

# Fund Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Hydroelectric Power Renewal Replacement Fund</b>				
<b>EXPENDITURES</b>				
Fund Transfers - Expense	\$125,000	\$0	\$60,000	48%
Contingency	\$9,622,308	\$0	\$9,481,050	99%
<b>TOTAL EXPENDITURES</b>	<b>\$9,747,308</b>	<b>\$0</b>	<b>\$9,541,050</b>	<b>98%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$9,222,708	\$0	\$9,303,360	101%
Miscellaneous	\$524,600	\$11,769	\$237,690	45%
<b>TOTAL REVENUES</b>	<b>\$9,747,308</b>	<b>\$11,769</b>	<b>\$9,541,050</b>	<b>98%</b>

## Fund Projection Narrative

### EXPENDITURES

Fund Transfers - Expense (48%)

These cash transfers are made from this Fund (No.618) to the Hydropower Operating Fund (No. 601) to pay for repair and replacement work at the Portland Hydroelectric Project (PHP) as those needs arise. This under-expenditure variance is due to the fact that the budgeted amount includes a place holder for unidentified work and in FY2010-11, there have not been a lot of renewal and replacement projects required for the facilities of the PH P. Therefore, the transfers from this Hydropower Renewal & Replacement Fund to the Hydropower Operating Fund (Fund No. 601) have ended up being less than budgeted.

Contingency (99%)

No variance to report

### REVENUES

Budgeted Beginning Fund Balance (101%)

No variance to report

Miscellaneous Revenues (45%)

From the time that the budget request was submitted in February, 2010 to the time that the annual billing statement to PGE for the PHP's Contract Year 2010-11 (October, 2010 to September, 2011) was finalized in October of 2010, the amount needed in power sales to this Fund dropped by \$112,260 or 21% of the Miscellaneous Revenues budget amount for this Fund. The other part of this variance is associated with the available interest rates for re-investing of the cash balances in this Fund. Those available interest rates have been about half of what had been used in the budget projections. There is also an accounting issue in how the investment transactions are being booked that will be resolved prior to the Spring BuMP. Any necessary adjustments will be handled in the Spring BuMP.

## Business Area Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Portland Water Bureau</b>				
<b>EXPENDITURES</b>				
Unappropriated Fund Balance	\$67,004,469	\$0	\$78,050,908	116%
Personal Services	\$59,134,025	\$28,580,165	\$58,794,538	99%
External Materials and Services	\$24,603,150	\$7,672,433	\$21,625,308	88%
Internal Materials and Services	\$20,176,909	\$9,170,696	\$21,281,537	105%
Capital Outlay	\$34,121,300	\$14,977,421	\$33,621,300	99%
Bond Expenses	\$33,548,554	\$20,680,821	\$33,549,004	100%
Fund Transfers - Expense	\$136,966,691	\$70,492,198	\$134,264,960	98%
Contingency	\$64,383,052	\$0	\$62,276,213	97%
<b>TOTAL EXPENDITURES</b>	<b>\$439,938,150</b>	<b>\$151,573,734</b>	<b>\$443,463,768</b>	<b>101%</b>
<b>REVENUES</b>				
Budgeted Beginning Fund Balance	\$104,795,122	\$0	\$114,745,683	109%
Charges for Services	\$117,611,286	\$52,942,931	\$114,111,285	97%
Intergovernmental Revenues	\$1,389,400	\$912,849	\$1,389,400	100%
Interagency Revenue	\$2,509,103	\$1,261,788	\$2,493,196	99%
Fund Transfers - Revenue	\$128,234,833	\$65,025,325	\$125,558,808	98%
Bond and Note	\$80,225,000	\$0	\$80,300,000	100%
Miscellaneous	\$5,173,406	\$736,357	\$4,865,396	94%
<b>TOTAL REVENUES</b>	<b>\$439,938,150</b>	<b>\$120,879,250</b>	<b>\$443,463,768</b>	<b>101%</b>

### Bureau Projection Narrative

# Business Area Projection Report

	Winter BuMP Revised Budget	FY 2010-11 Year to Date Actuals	Winter BuMP Year-End Projection	% of Projected Actuals to Revised Bud
<b>Portland Water Bureau</b>				
<b>EXPENDITURES</b>				
External Materials and Services	\$162,400	\$77,752	\$162,400	100%
Capital Outlay	\$776,000	\$158,152	\$776,000	100%
<b>TOTAL EXPENDITURES</b>	<b>\$938,400</b>	<b>\$235,904</b>	<b>\$938,400</b>	<b>100%</b>
<b>REVENUES</b>				
Intergovernmental Revenues	\$938,400	\$282,036	\$938,400	100%
<b>TOTAL REVENUES</b>	<b>\$938,400</b>	<b>\$282,036</b>	<b>\$938,400</b>	<b>100%</b>

**Bureau Projection Narrative**