Value Engineering Annual Report FY 2010/2011



Table of Contents

Executive Summary	1
Program Organization	2
Value Engineering (VE) Overview	3
Cost Savings Initiative (CSI) Overview	5
FY 2010/2011 VE Performance Measures	6
Adopted Recommendations	7
Adoption Rates	9
Percent Project Saved	10
Percent Program Saved	11
Return on Investment	12
Work Plan Completion	13
Pending Recommendations	14
FY 2010/2011 CSI Performance Measures	15
CSI Summary	16
CSI Approved Savings	17
CSI Percent Project Saved	18
CSI Percent Program Saved	19
Appendix A: 5 year History Annual Performance Measures by District	20
District 1	21
District 2	25
District 3	29
District 4	33
District 5	37
District 6	41
District 7	45
Turnpike	49
Appendix B: Process Control Systems	53

Executive Summary

Value Engineering During Project Development

The effort put forth in value engineering by the department over the past ten years has produced more than \$2.5 billion in implemented cost avoidance. This effort has led to the department being recognized as a national leader in value engineering.

The districts completed 20 studies or 77% of the original number of studies scheduled for fiscal year 2009/2010. The original work plan had 26 studies scheduled for the year and the target was to complete 75% or 20 of the planned studies. Due to the dynamics of the department's work program, 9 of the 26 scheduled studies (35%) were either dropped from the work plan altogether or rescheduled for the 2010/2011 fiscal year, while six of the completed studies were added to the original work plan.

During this same period, the districts acted on 102 recommendations, approving 60 for a 59% adoption rate. Forty-five of the approved recommendations resulted in \$158 million in project cost avoidance/savings. The remaining 15 approved recommendations were value added recommendations that increased project performance, while adding \$17 million to the project cost. Therefore, the total value of the approved recommendations, including the value added recommendations, produced \$141 million in project cost avoidance/savings.

The approved recommendations resulted in a 4.53% project saved and a Return on Investment (ROI) of \$138 to \$1. The percent project saved is calculated by dividing the value of all approved recommendations by the total costs of the projects studied, while the ROI is calculated by dividing the value of all approved recommendations by the cost of administering the program.

There were 63 pending recommendations totaling \$323.7 million in potential cost avoidance/ savings at the end of the 2010/1011 fiscal year. This is a 12.5% increase in the total number of pending recommendations from the end of the 2009/2010 fiscal year. Thirty-nine of the 63 recommendations have been pending for more than 12 months, which is more than 60% of the total number of pending recommendations. Since the VE Study is a 'snapshot' of the project at some point in time of project development and projects are continuously moving forward in development, this is a concern. The longer recommendations are unresolved and in a pending status the less likely that they will be adopted because the development of the project has advanced.

Cost Savings Initiatives During Construction

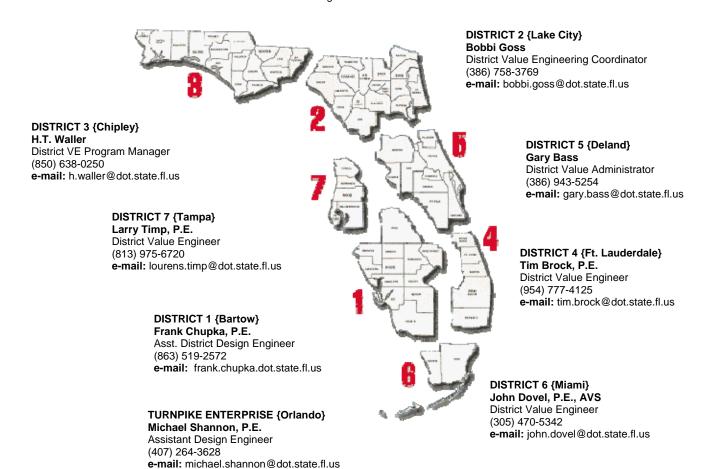
Seventeen Cost Savings Initiative (CSI)'s) Proposals were submitted during fiscal year 20010/20011, totaling more than \$5.10 million in potential project savings. During this same period, the districts acted on 22 proposals approving 19. The implemented savings from the 19 approved CSI's was \$4.87 million. There are currently five pending VECP's totaling \$2.10 million in potential project savings.

Program Organization

Mission: Administer the Florida Department of Transportation Value Engineering and Cost Savings Initiative Programs, satisfying the needs of the stakeholders.

Vision: Value Engineering . . . providing an effective support function which maximizes project and process value for the transportation systems in the State of Florida.

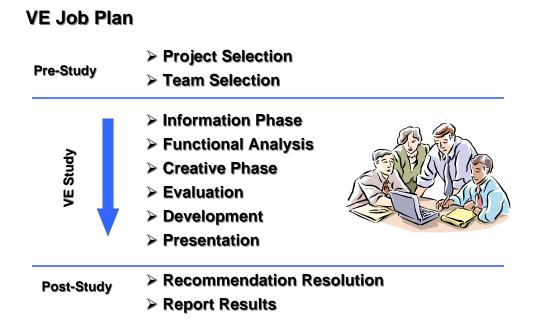
CENTRAL OFFICE {Tallahassee} Kurt Lieblong, P.E., CVS State Value Engineer (850) 414-4787 e-mail: kurt.lieblong@dot.state.fl.us



Value Engineering Overview

What is Value Engineering

Value Engineering (VE) is the formal application of a proven and effective tool used to improve the value of a project, product or service. VE strives to optimize the use of allocated funds without reducing the quality or performance. A multi-disciplined team is assembled and the six phases of the VE Job Plan (Information, Functional Analysis, Creative, Evaluation, Development and Presentation) are used to guide the team through the process.



The administration of the VE Program can be broken down into the following key processes.

Pre-Study	Study	Post Study
Project Selection	Conduct VE Study	Recommendation Resolution
Team Selection		Report Results

Value Engineering Overview

Performance Measures

The VE Program and the Cost Savings Initiative (CSI) Program are managed through the use of the Process Control Systems found in Appendix B. Each process has a set of Quality and In-Process measures that are used to evaluate the performance of the program. The Quality Measures for the overall VE program are defined below.

VE Program		
Quality Measure	Calculation	
Q1: Approved Cost Avoidance Recommendations	Sum of all approved cost avoidance/ savings recommendations	
Q2: Approved Value Added Recommendations	Sum of all approved value added recommendations	
Q3: Adoption Rate	# of Approved Recommendations # of Proposed Recommendations	
Q4: Percent Project Saved	Value of Approved Recommendations Total Project Costs	
Q5: Percent Program Saved	Value of Approved Recommendations 3 Year Monthly Average Lettings	
Q5: Return on Investment (only reported annually)	Value of Approved Recommendations Total cost of VE Program	

Cost Savings Initiative Overview

What is Cost Savings Initiative

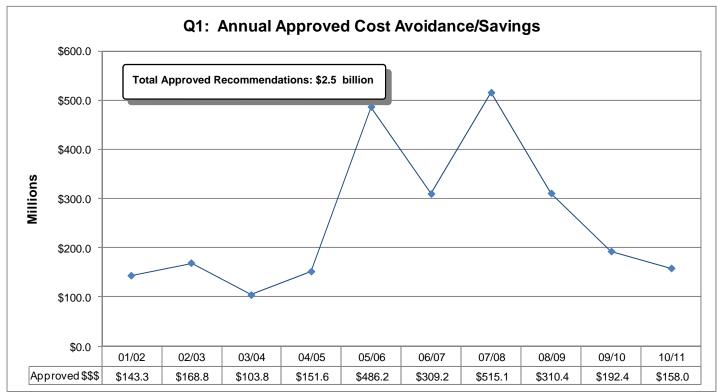
The Cost Savings Initiative Program offers an opportunity for the contractor to propose cost savings ideas prior to work beginning and as work progresses on a project. Contractors can demonstrate their innovation and ingenuity by proposing ideas that contribute to the cost effectiveness of the project. The contractors are then rewarded for this ingenuity and innovation by sharing in any project savings generated from an approved Cost Savings Initiative (CSI) proposal.

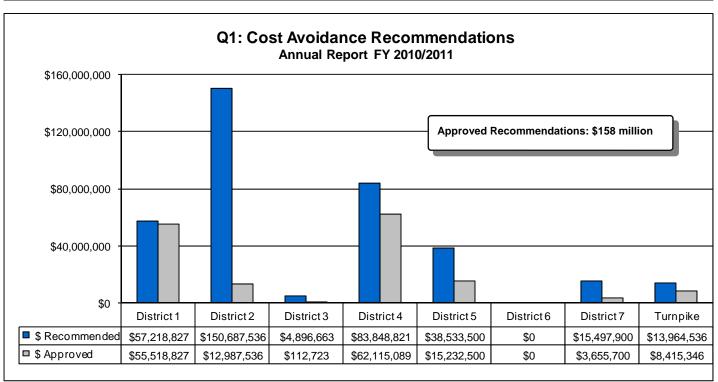
Performance Measures

CSI Program		
Q1: Number of CSI's	Sum of all CSI's	
Q2: Approved Cost Savings	Sum of all approved CSI savings	
Q3: Percent Project Saved	Value of Approved Proposals Total Project Costs	
Q4: Percent Program Saved	Value of Approved Recommendations 3 Year Monthly Average Lettings	

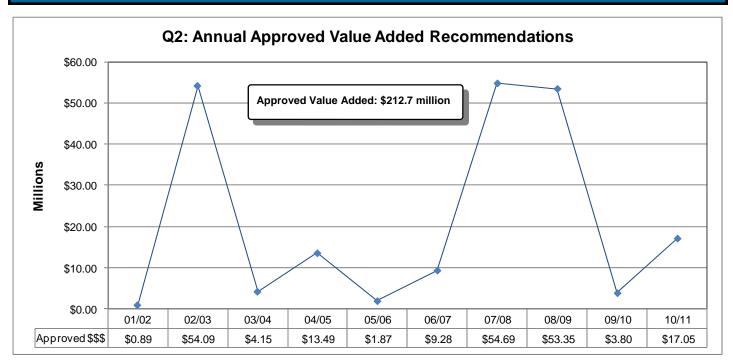
Fiscal Year 2010/2011 Value Engineering Performance Measures

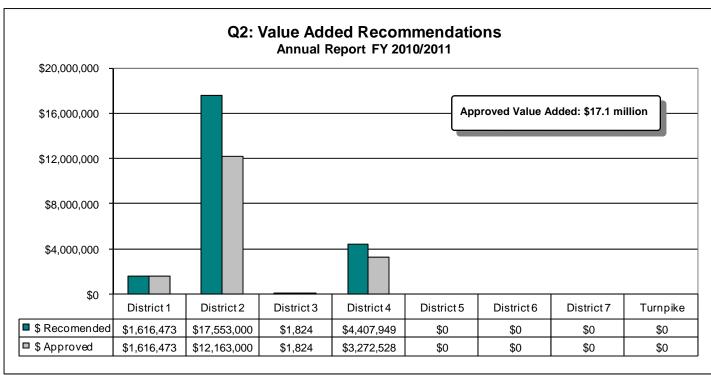
Adopted Recommendations





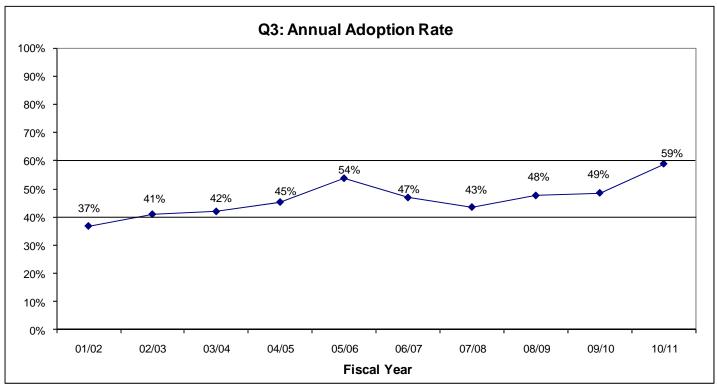
Adopted Recommendations

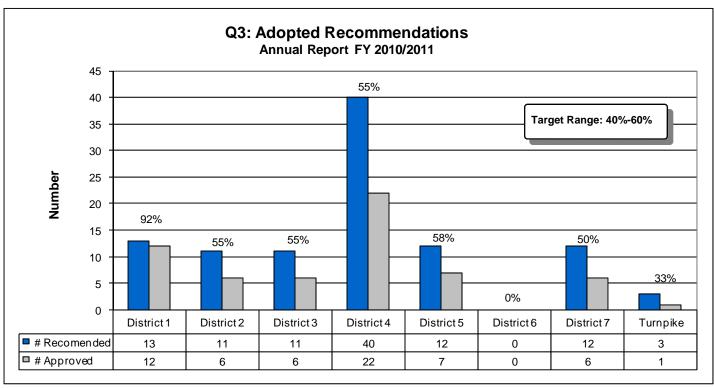




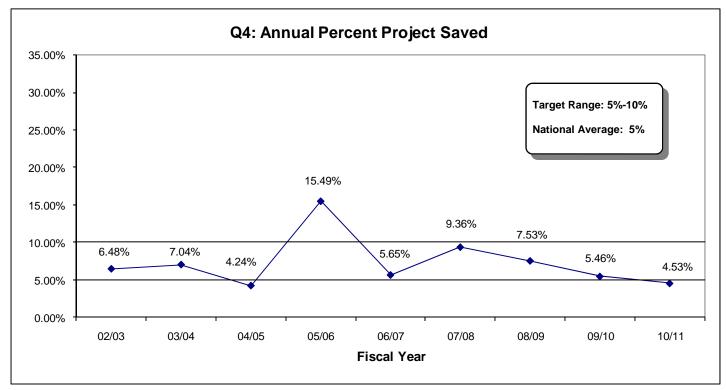
* A Value Added Recommendation significantly increases the performance of a function while also increasing the cost.

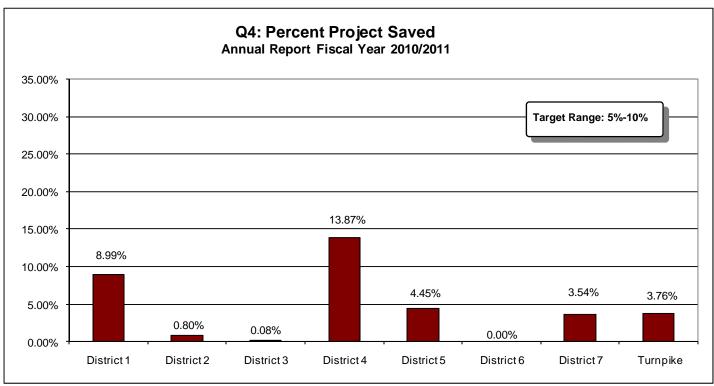
Adoption Rates





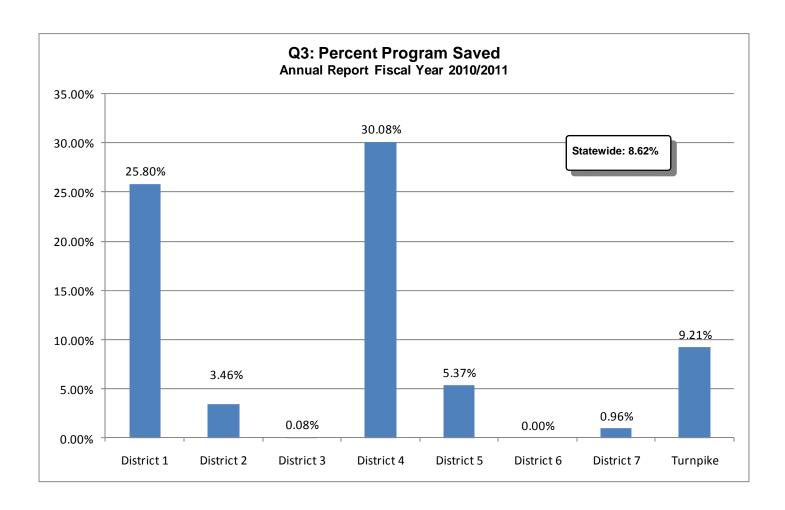
Percent Project Saved



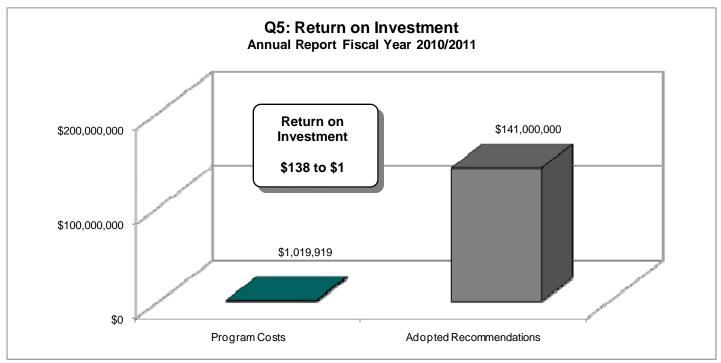


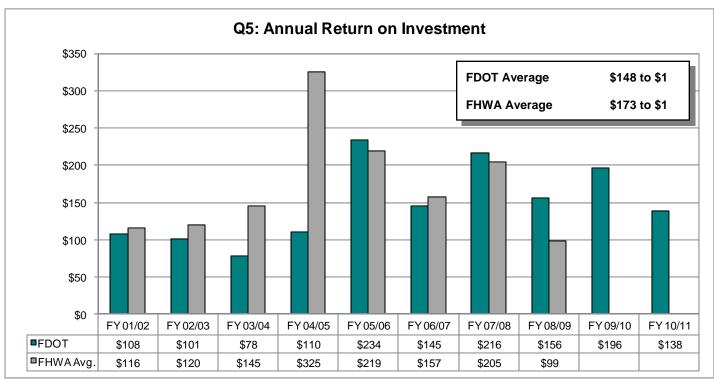
Percent Program Saved

The Percent Program Saved is a new measure introduced this year. The intent is to compare the cost avoidance/savings to the overall work program. The measure is calculated by dividing the three year average monthly lettings into the overall cost avoidance/savings. Line charts showing trends will be developed in future years as data becomes available.



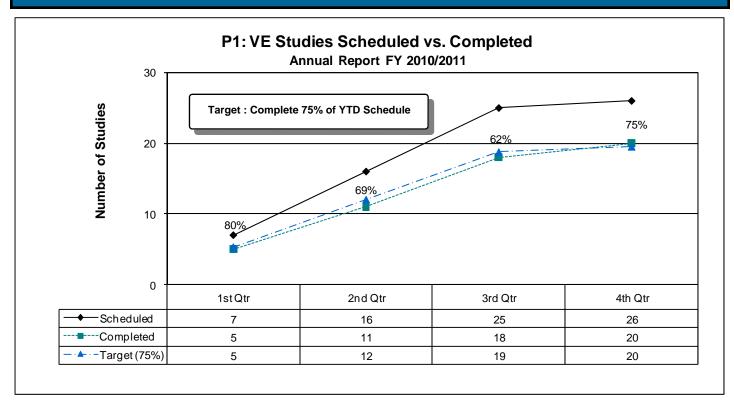
Return on Investment

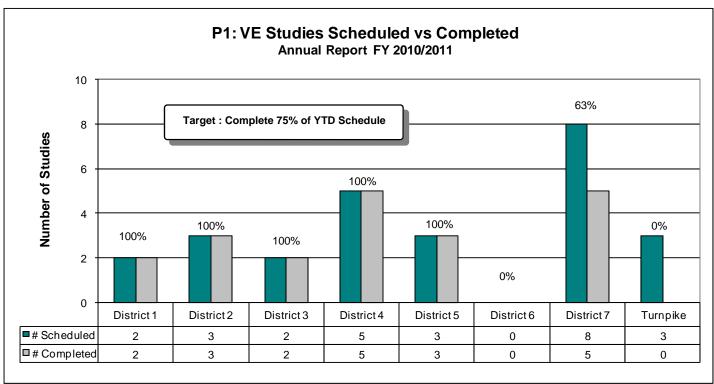




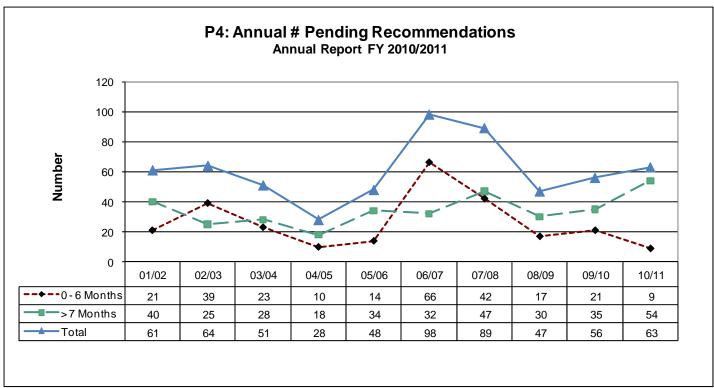
* FHWA data for fiscal year 2009/2010 or 2010/2011 was not available at time of publication.

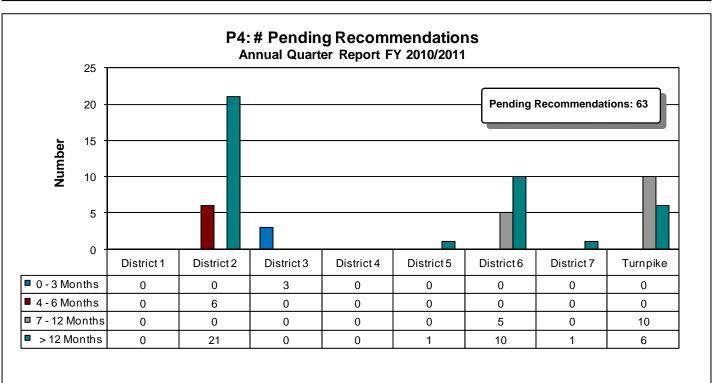
Work Plan Completion





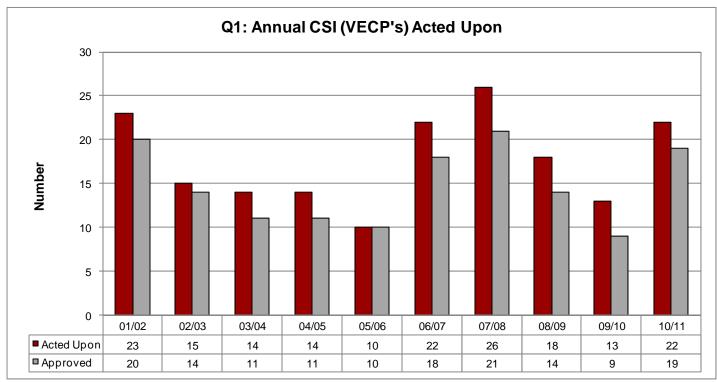
Pending Recommendations

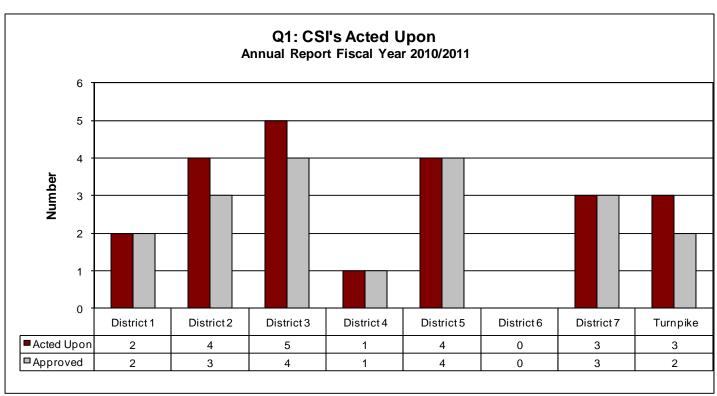




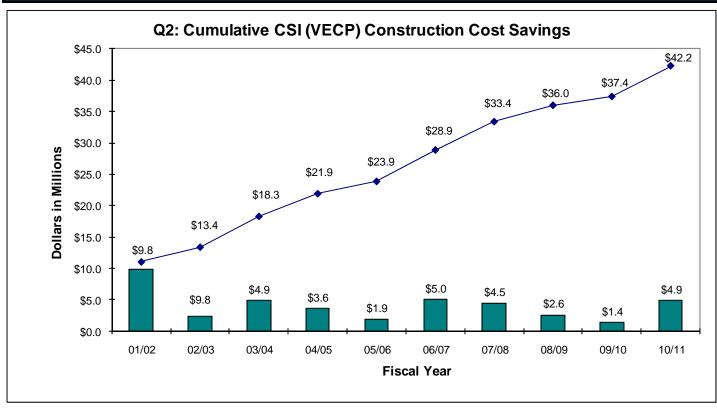
Fiscal Year 2010/2011 Cost Savings Initiative Performance Measures

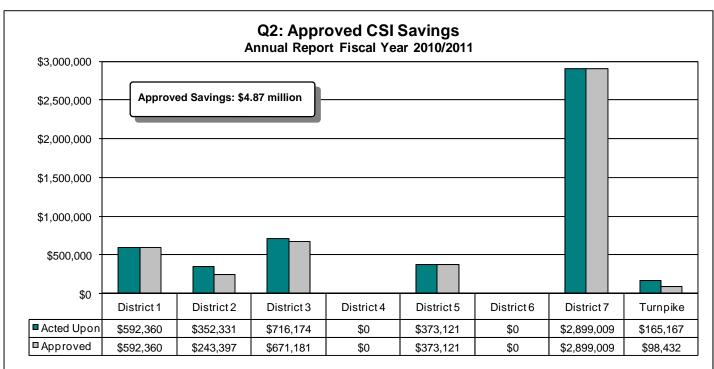
CSI Summary



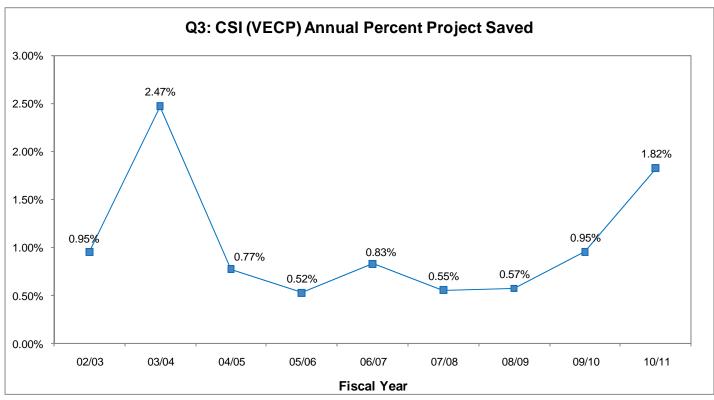


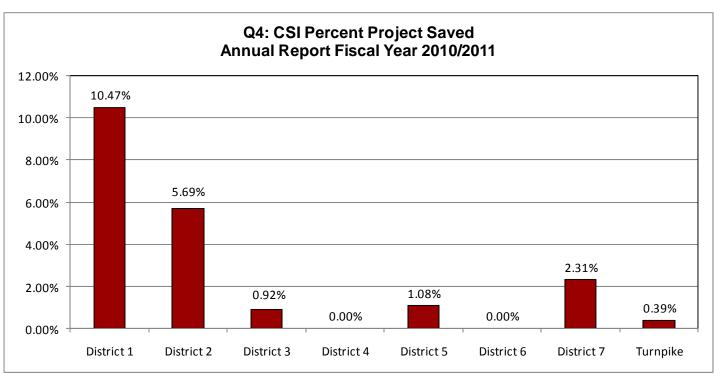
CSI Approved Savings





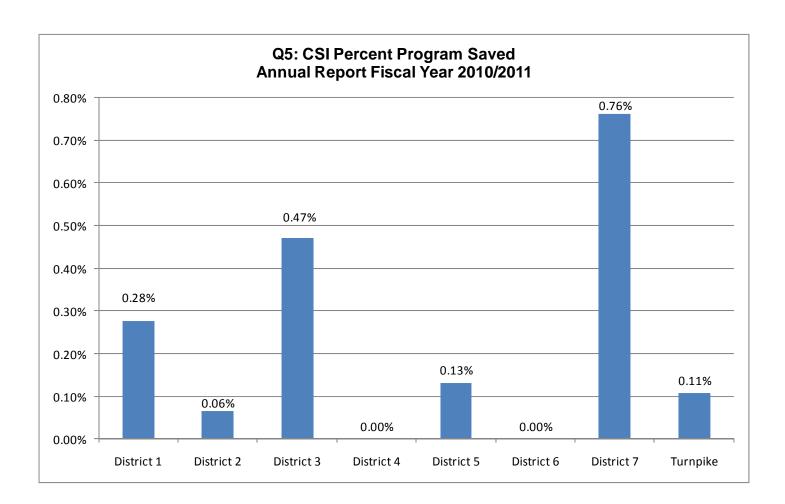
CSI Percent Project Saved



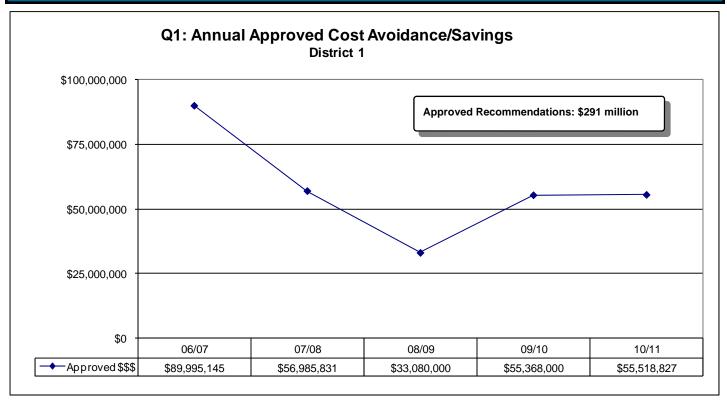


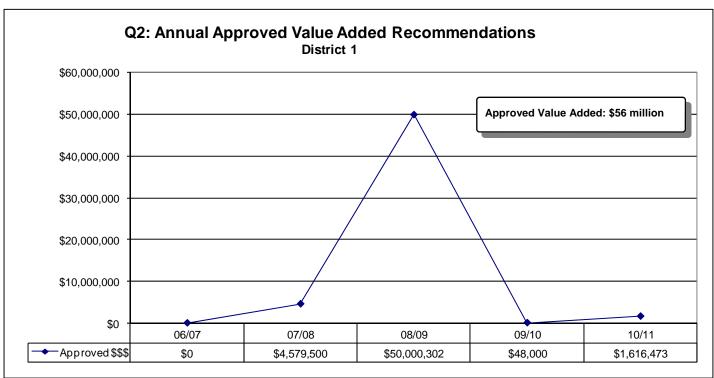
CSI Percent Program Saved

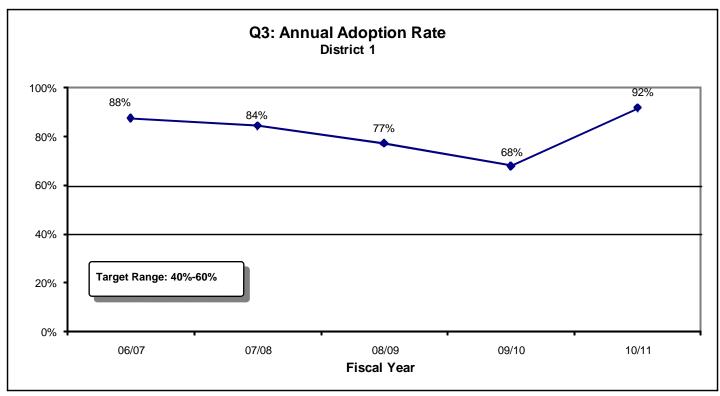
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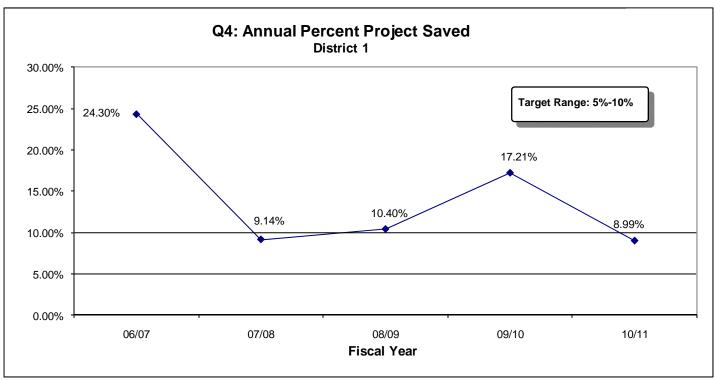


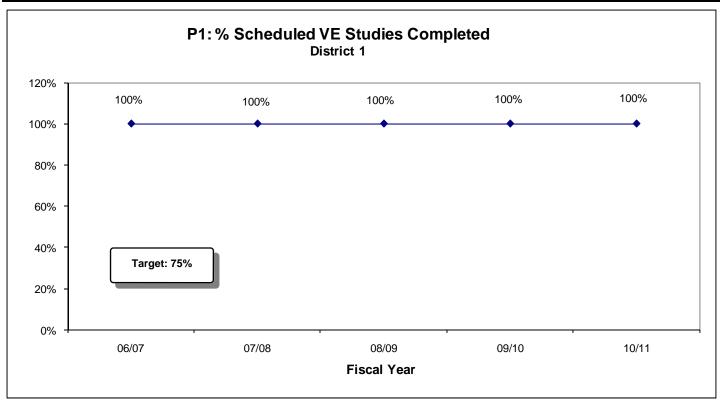
Appendix A 5 year History Annual Performance Measures by District

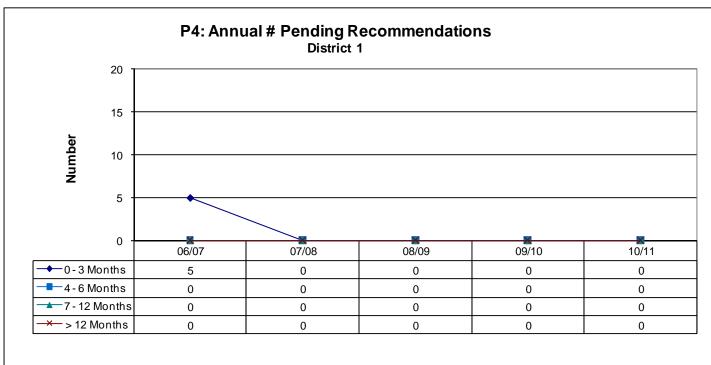


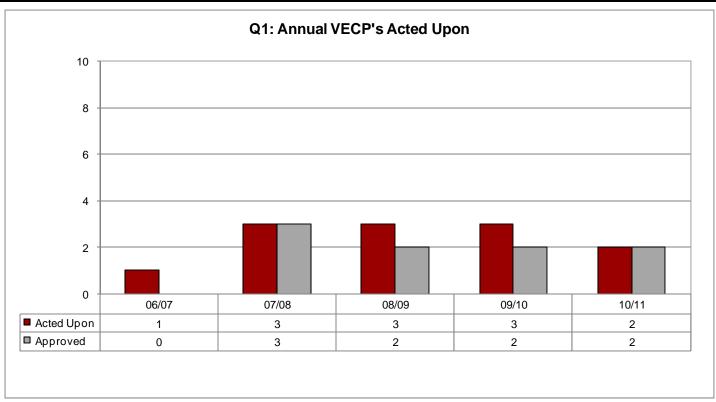


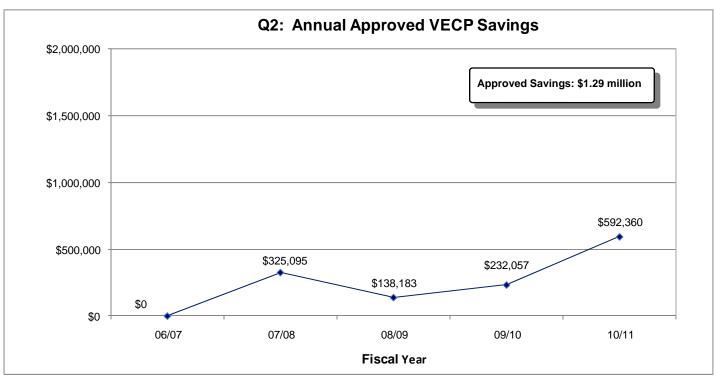


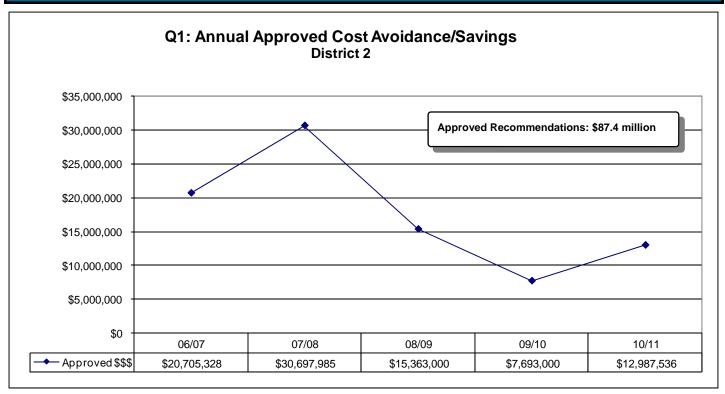


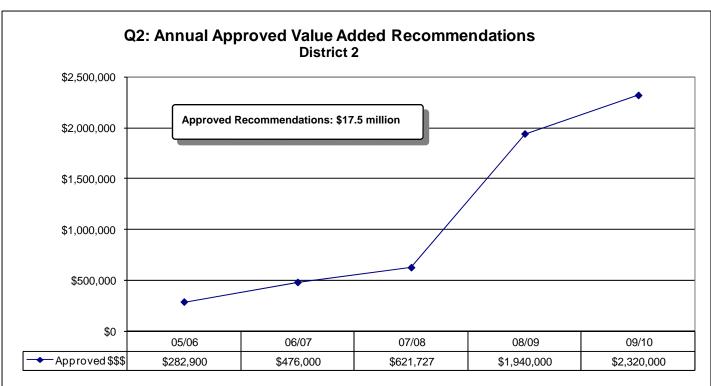


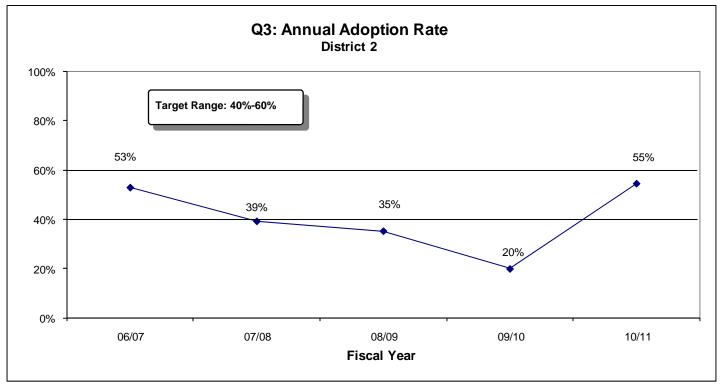


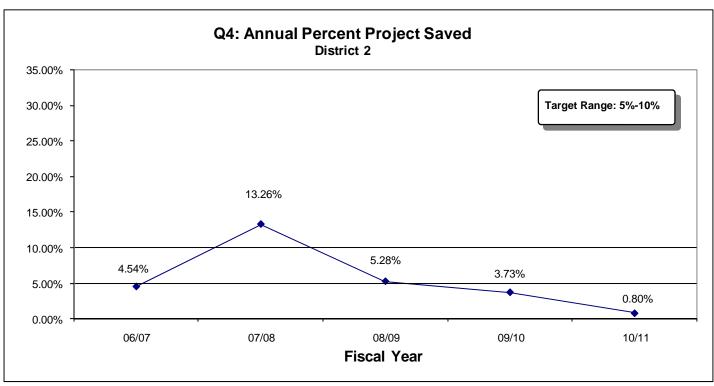


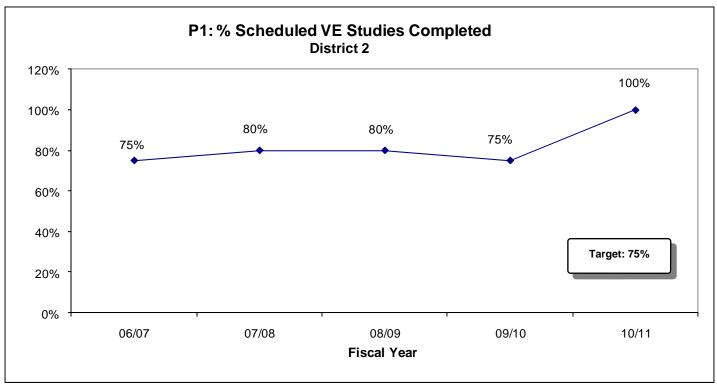


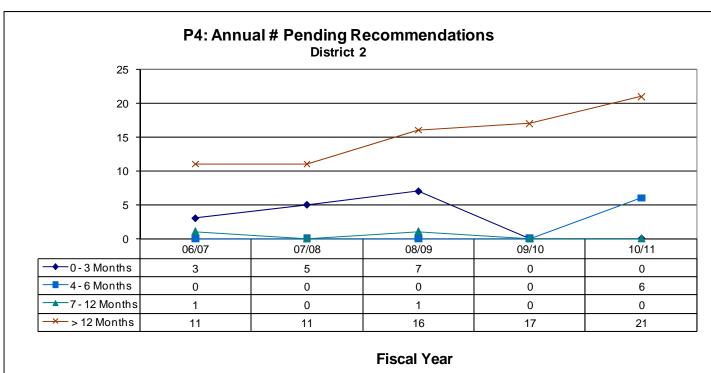


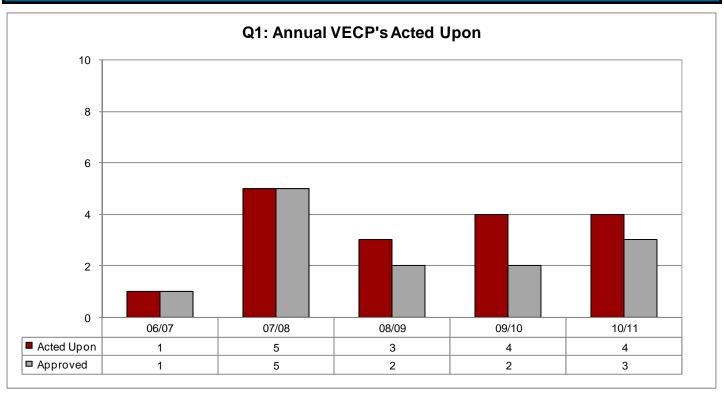


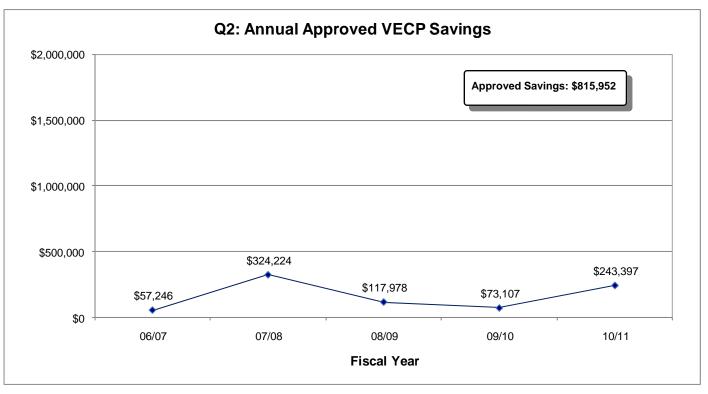


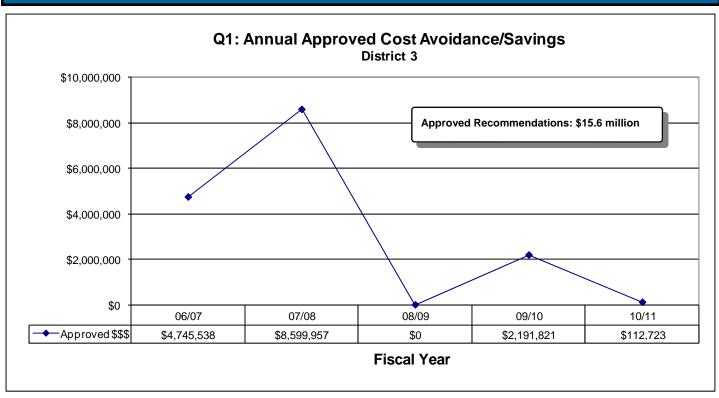


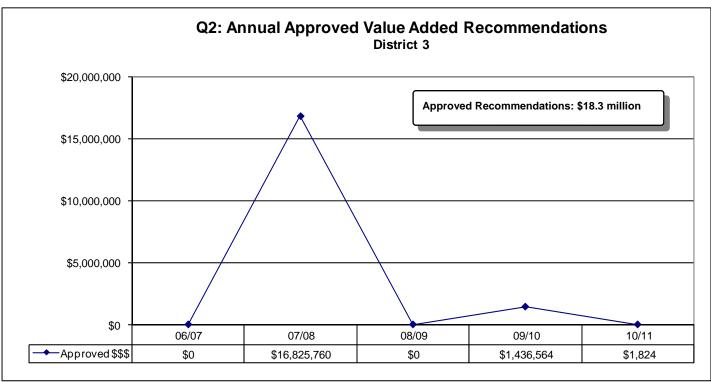


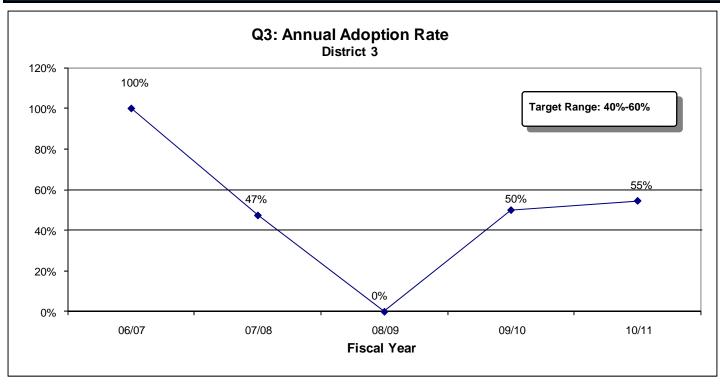


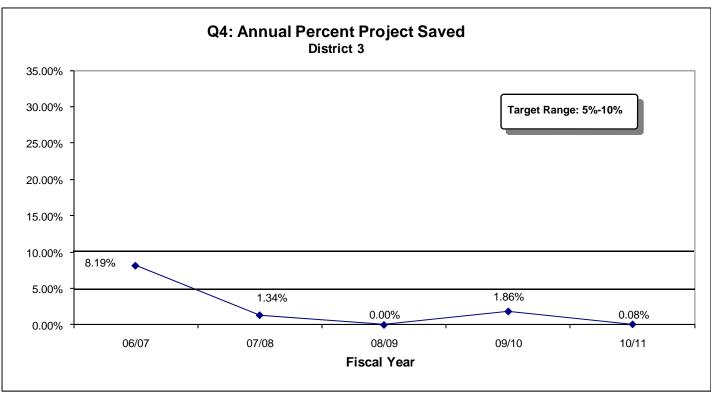


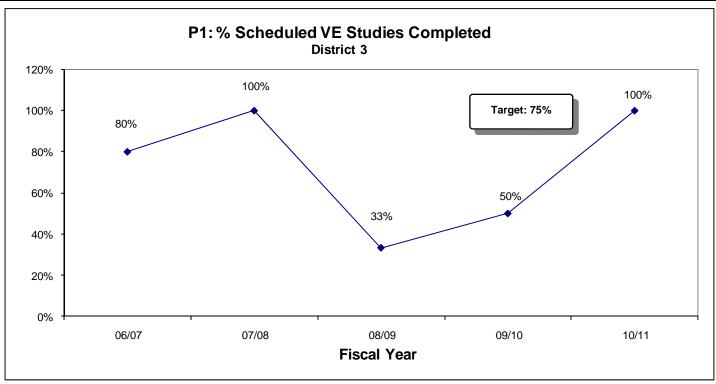


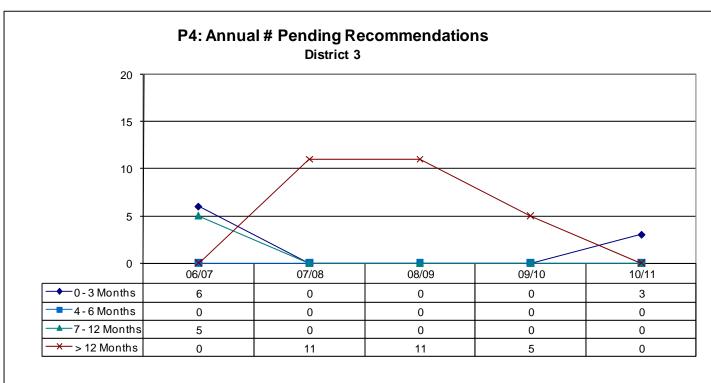


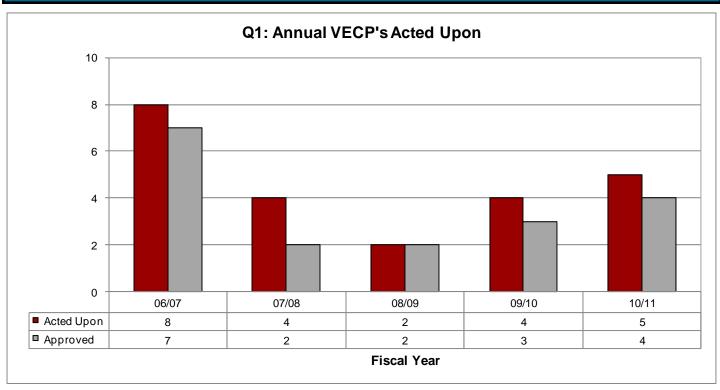


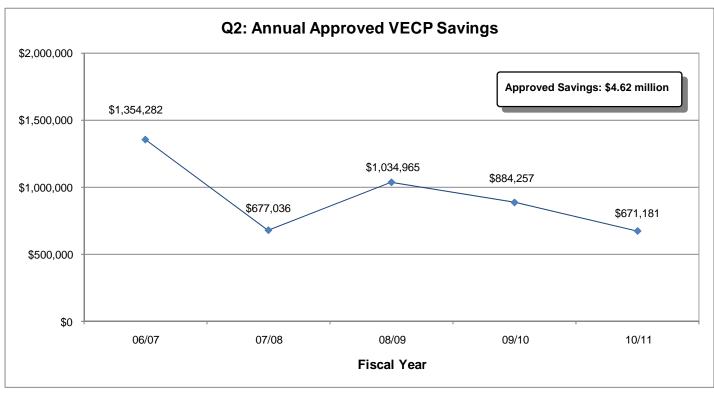


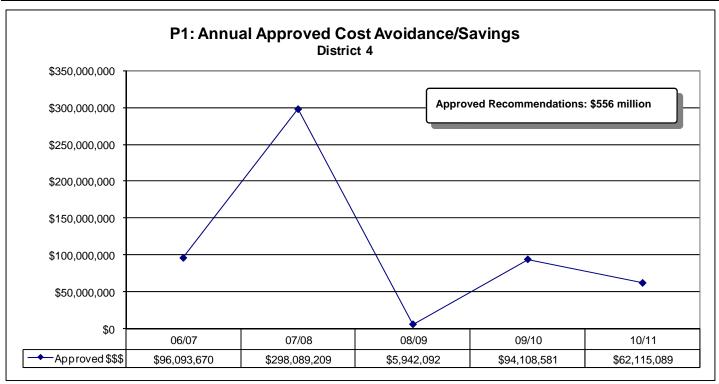


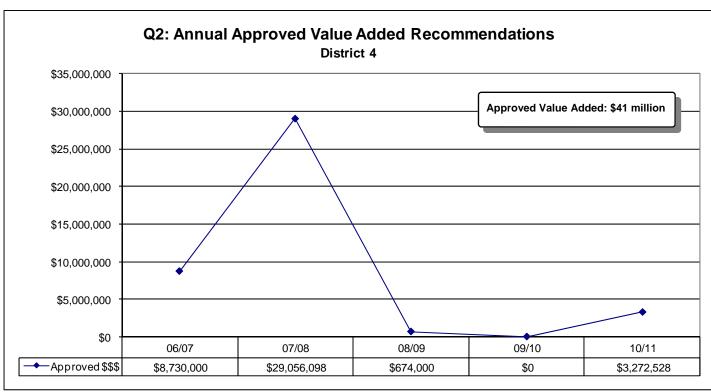


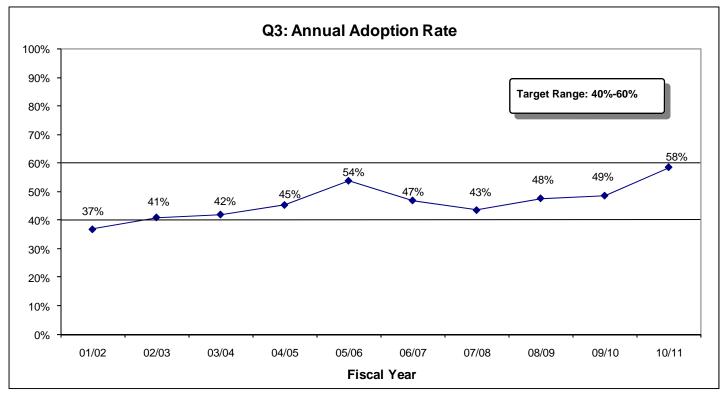


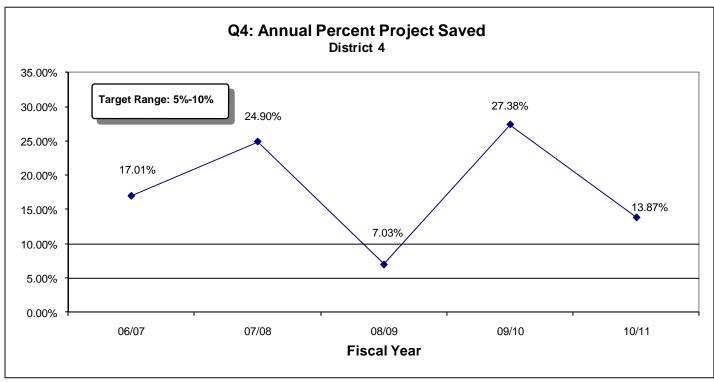


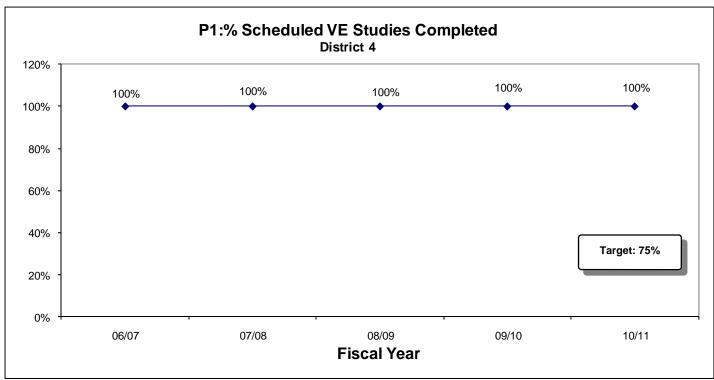


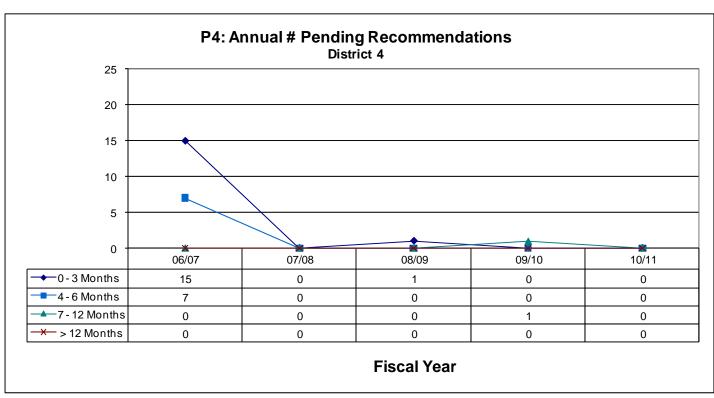


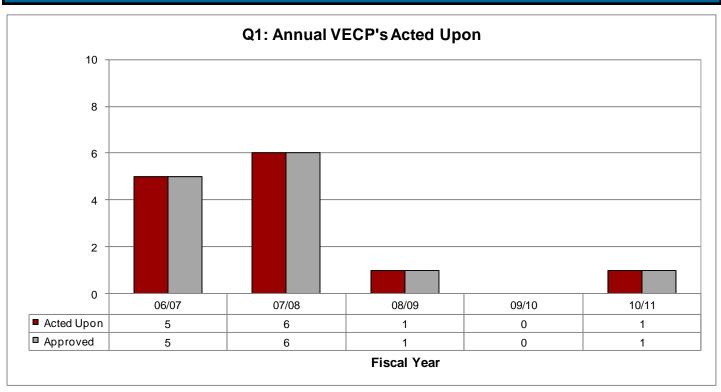


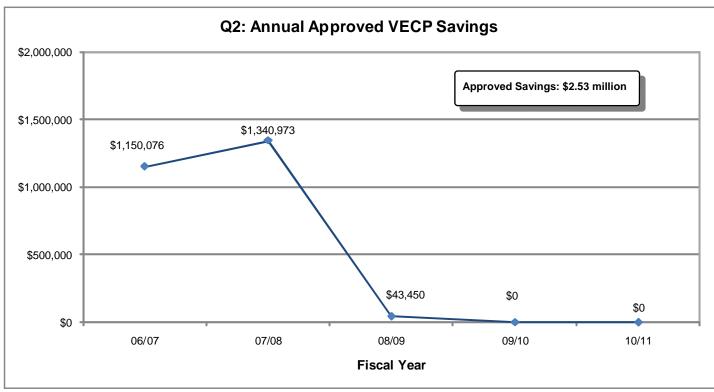


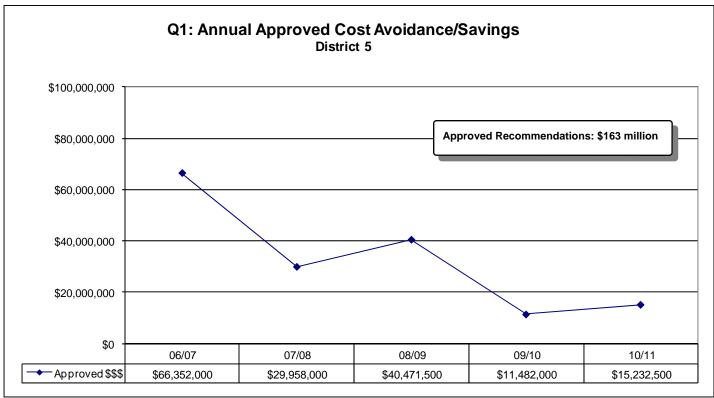


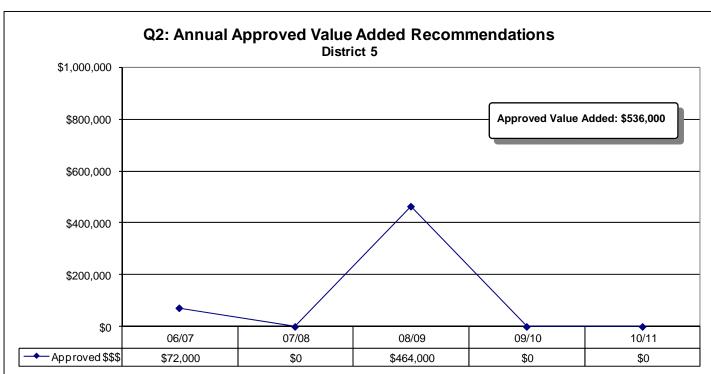


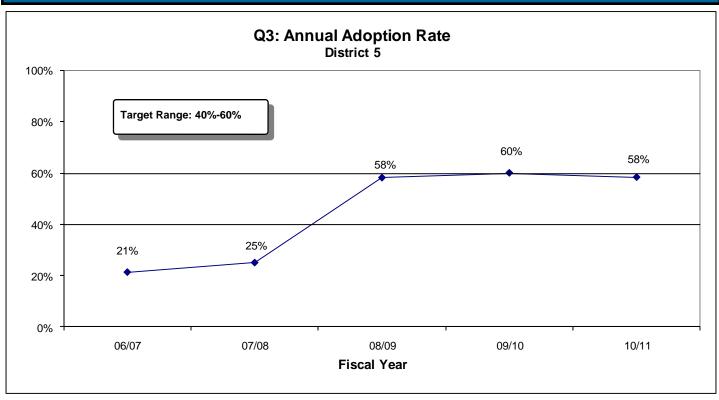


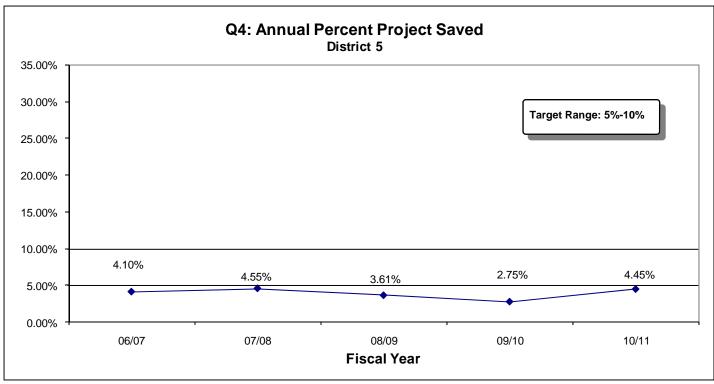


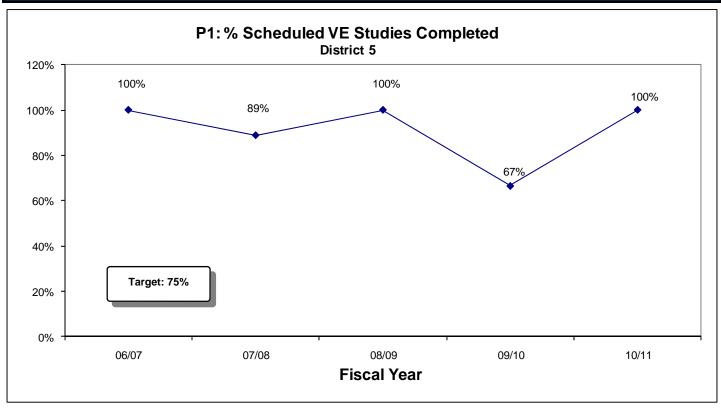


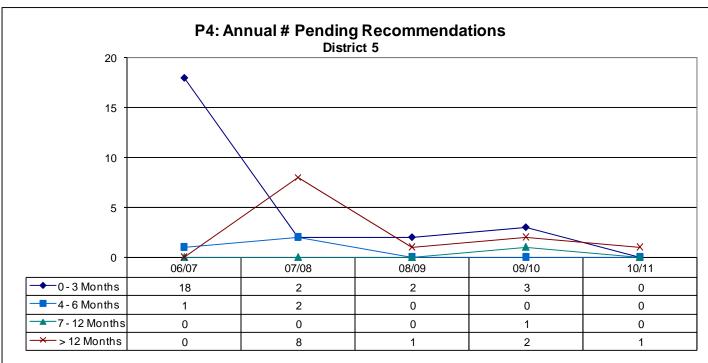


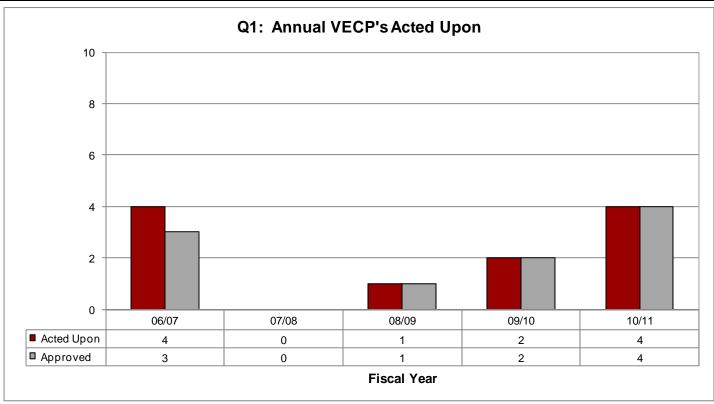


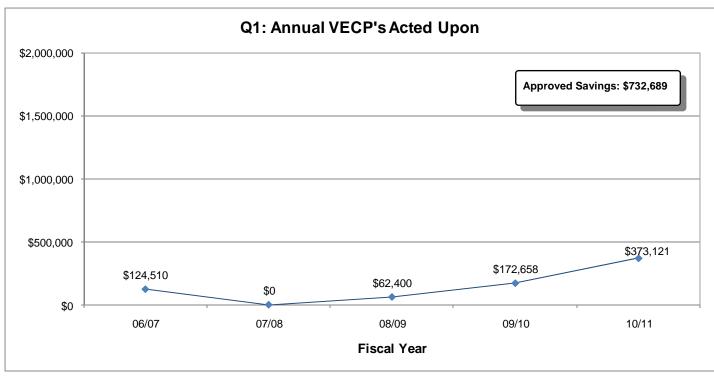


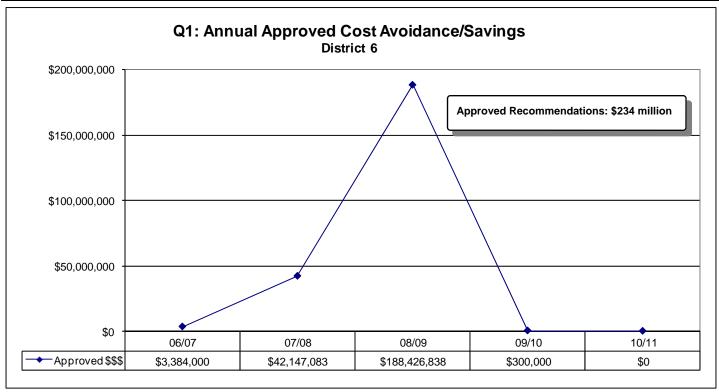


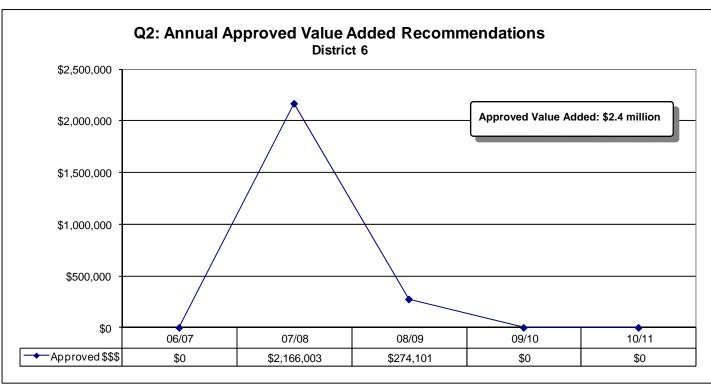


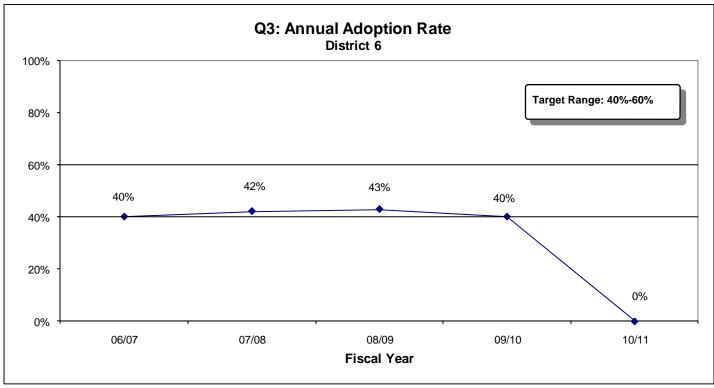


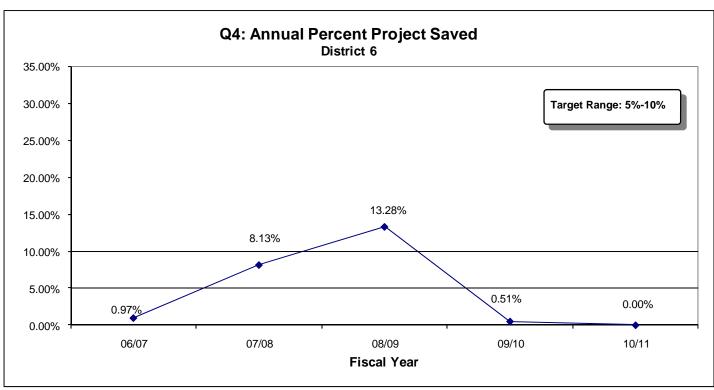


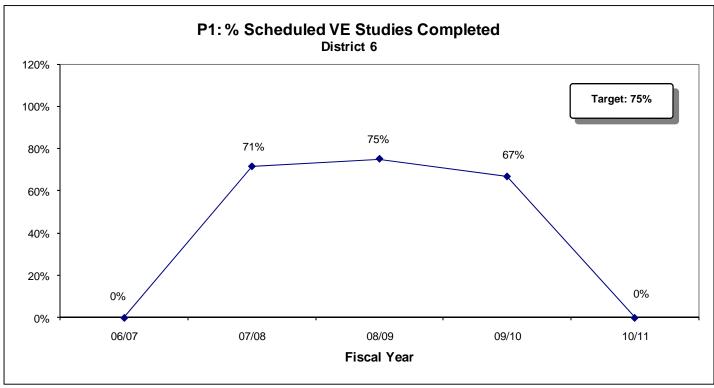


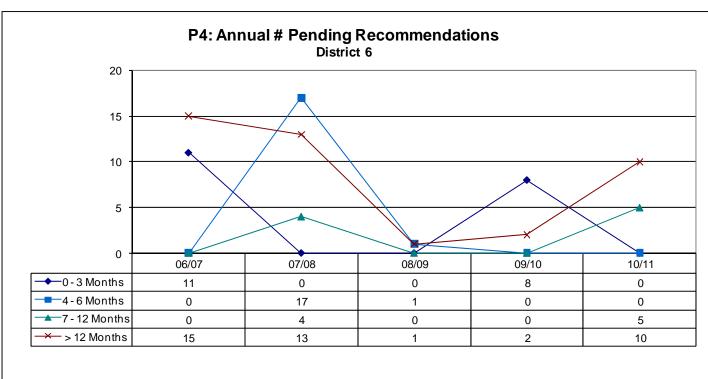


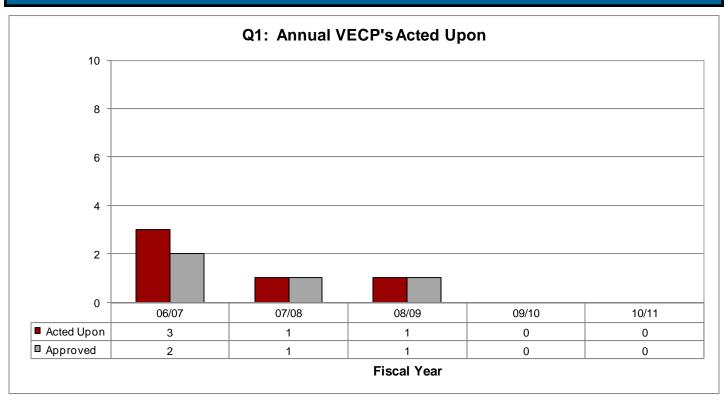


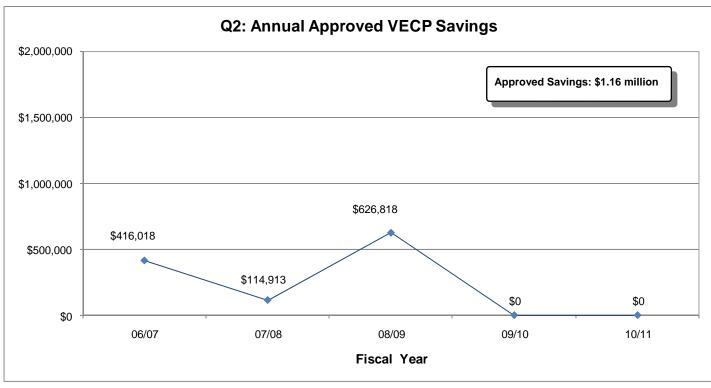


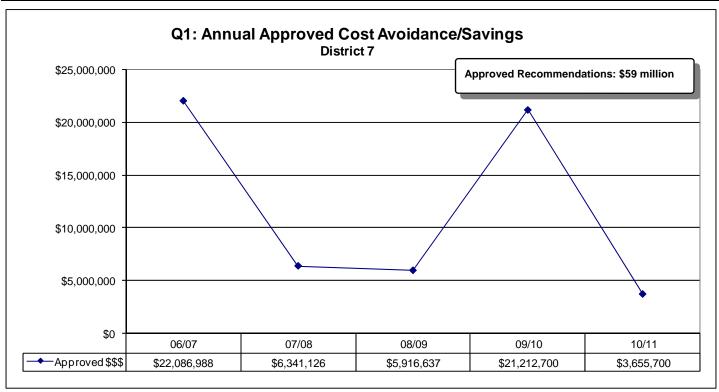


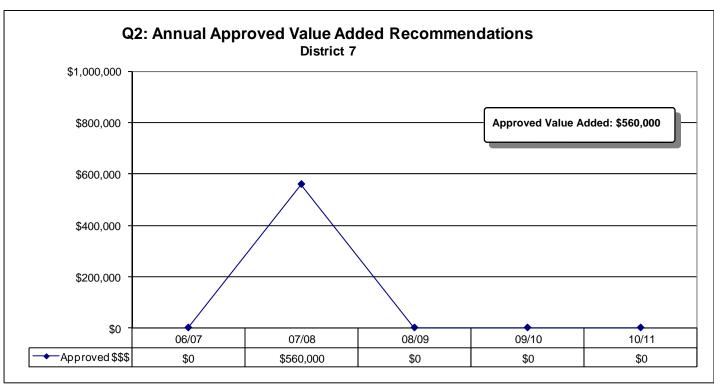


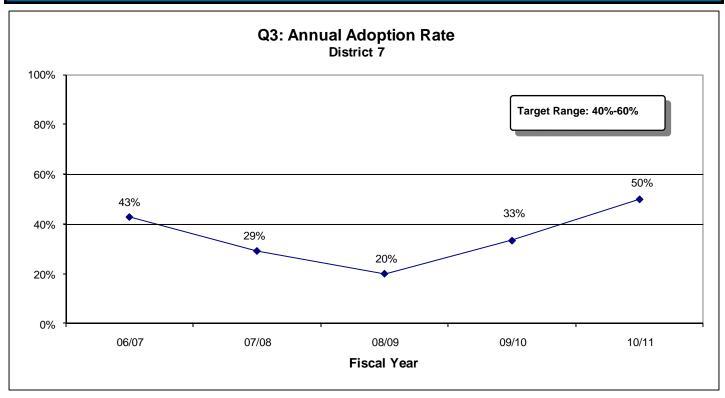


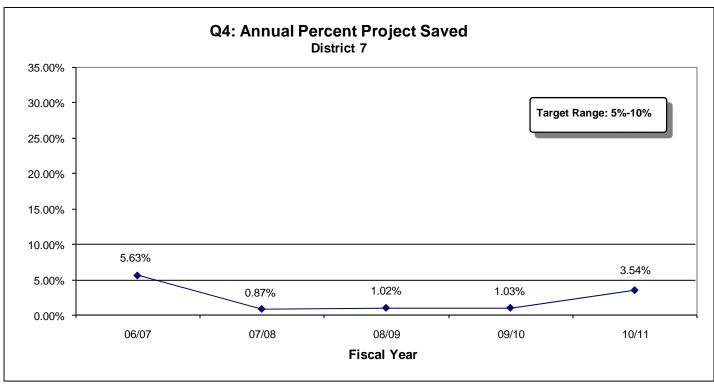


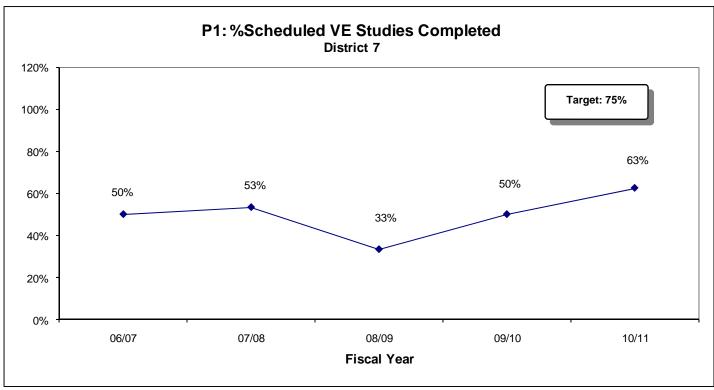


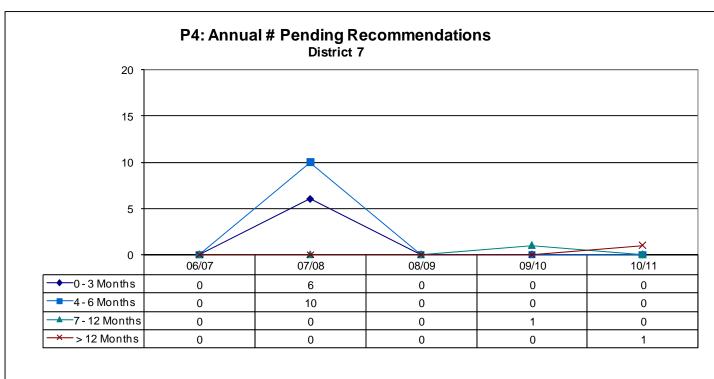


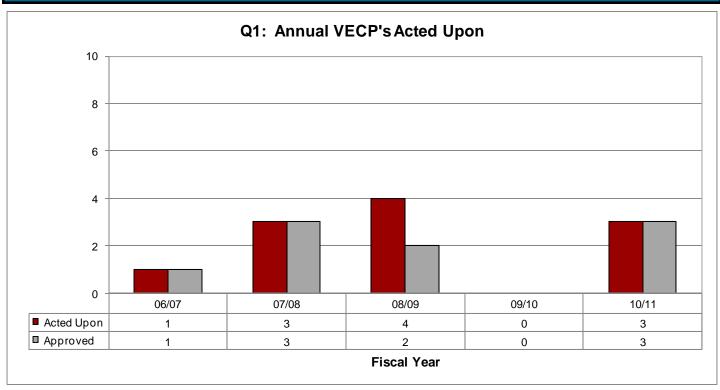


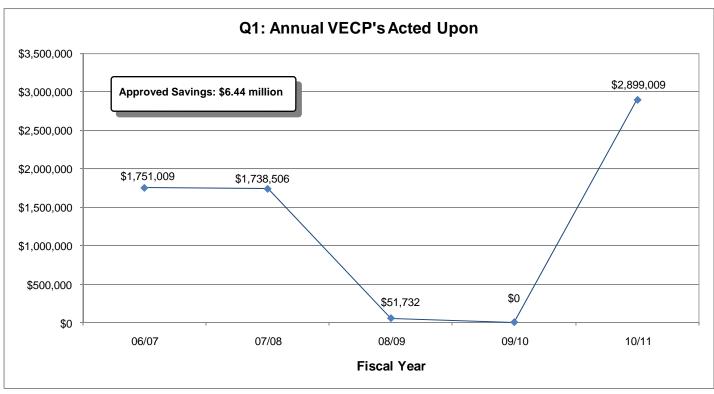




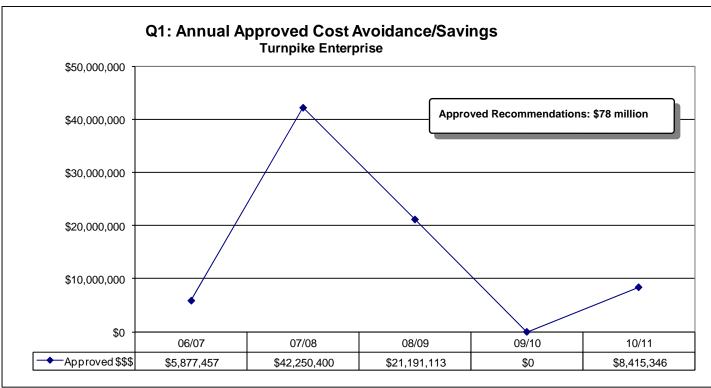


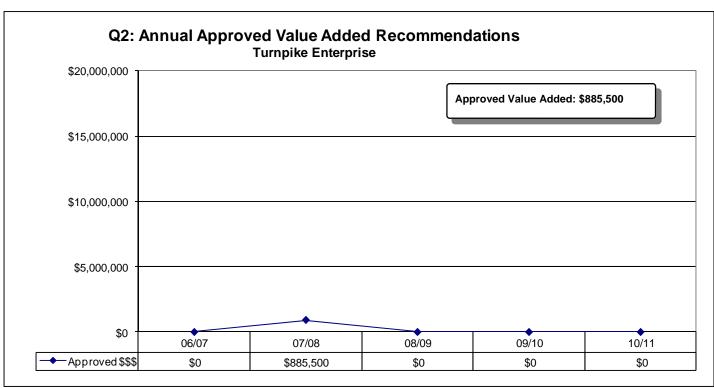




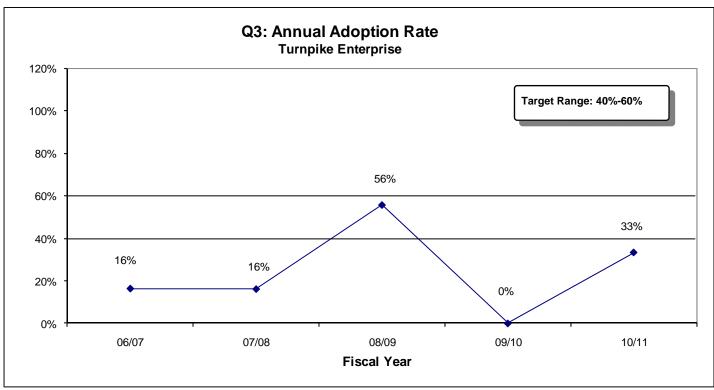


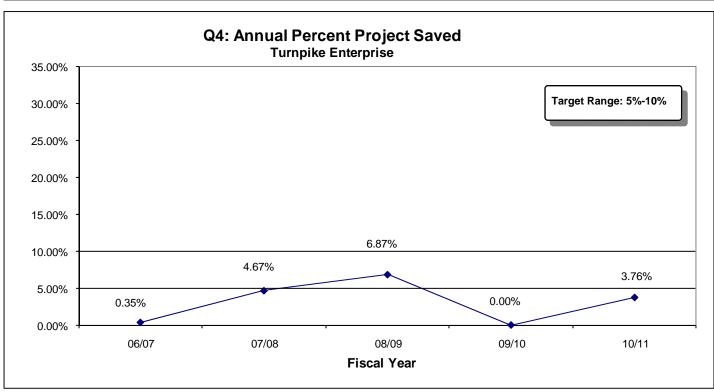
Turnpike Enterprise



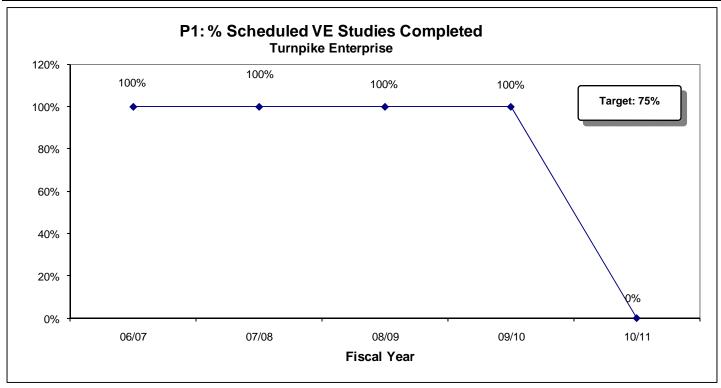


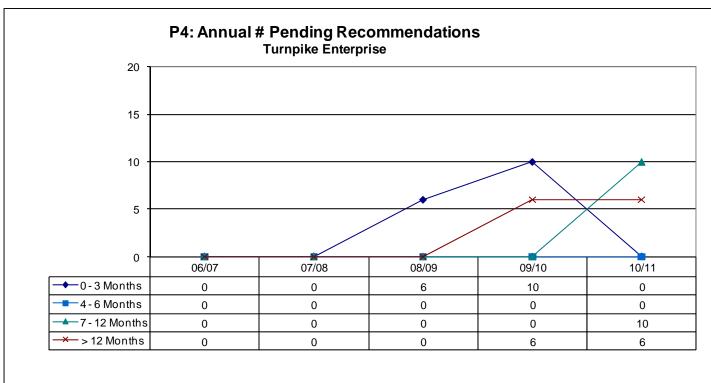
Turnpike



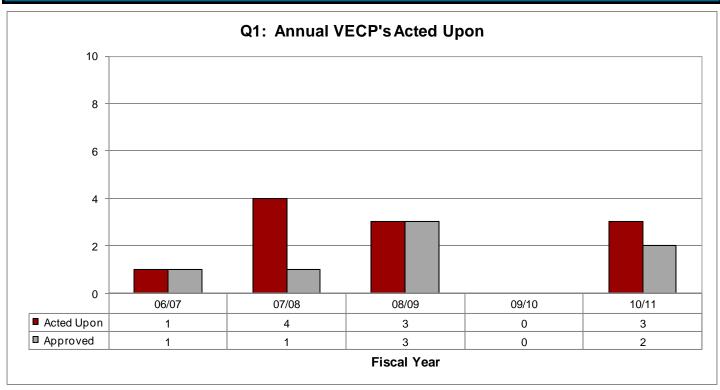


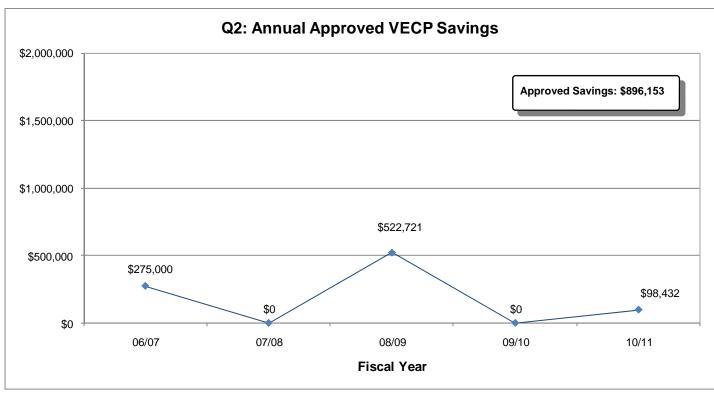
Turnpike





Turnpike





Appendix B Process Control Systems

