

## Energy Conservation: MCPS -- No. 796222

Category	Montgomery County Public Schools	Date Last Modified	November 28, 2007
Subcategory	Countywide	Required Adequate Public Facility	No
Administering Agency	Public Schools	Relocation Impact	None
Planning Area	Countywide	Status	On-going

### EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY07	Est. FY08	Total 6 Years	FY09	FY10	FY11	FY12	FY13	FY14	Beyond 6 Years
Planning, Design, and Supervision	2,320	350	200	1,770	295	295	295	295	295	295	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	12,191	1,611	1,400	9,180	1,530	1,530	1,530	1,530	1,530	1,530	0
Other	525	155	100	270	45	45	45	45	45	45	0
<b>Total</b>	<b>15,036</b>	<b>2,116</b>	<b>1,700</b>	<b>11,220</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>*</b>

### FUNDING SCHEDULE (\$000)

G.O. Bonds	15,036	2,116	1,700	11,220	1,870	1,870	1,870	1,870	1,870	1,870	0
<b>Total</b>	<b>15,036</b>	<b>2,116</b>	<b>1,700</b>	<b>11,220</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>1,870</b>	<b>0</b>

### OPERATING BUDGET IMPACT (\$000)

Maintenance				-2,430	-486	-648	-648	-648	0	0
Energy				-3,741	-825	-972	-972	-972	0	0
<b>Net Impact</b>				<b>-6,171</b>	<b>-1,311</b>	<b>-1,620</b>	<b>-1,620</b>	<b>-1,620</b>	<b>0</b>	<b>0</b>

#### DESCRIPTION

The MCPS Energy Conservation Program has saved more than \$34 million since the project began in FY 1978. The project has been reviewed by the Interagency Committee on Energy and Utility Management. The program is designed to reduce energy consumption by improving building mechanical systems, retrofitting building lighting and control systems, and controlling HVAC equipment through computer management systems. Computer systems currently control the operation of most MCPS facilities.

New and modernized schools are built with the latest technological advances to achieve higher levels of energy savings. Energy conservation staff review new construction mechanical guidelines and designs. Staff also inspect and perform computer diagnostics of HVAC installations for operational efficiency and review certain aspects of indoor air quality. An FY 2001 Supplemental Appropriation of \$1.5M was approved for lighting ballast replacement. Funds approved in FY 2002 were approved to continue this program. In FY 2001 and beyond, \$439,000 for staff charges were migrated from the Capital Budget to the Operating Budget.

An FY 2003 appropriation was approved to continue to reduce energy consumption by improving mechanical systems, retrofitting building lighting and control systems, and controlling HVAC equipment in MCPS facilities. An FY 2004 appropriation was approved to continue this project at its current level of effort.

An FY 2005 appropriation was approved to continue this project. The increase in expenditures, beyond the level of effort for this project for FY 2005 and beyond, is due to the need to modernize energy management systems facing obsolescence. Of the over 170 installed energy management systems, many were installed in the 1980s, are approaching the end of their life-cycle, and replacement parts are no longer available. The approved FY 2005 appropriation and the FY 2006 appropriation include \$250K to complete pilot projects and select replacement technologies, including network and web interfaces. The expenditures shown for FY 2007 will achieve an economy of scale by bidding a large package of projects together. Expenditures shown over the six-year period will be used to complete the countywide lighting modernization program at the remaining 31 facilities. Expenditures shown for FY 2008-2010 will be used for the ongoing life-cycle replacement costs of energy management and control systems at over 170 facilities, to support the extension of the program to the remaining facilities, to support a planned program of water conservation projects, and to avoid future backlog in this area. An FY 2006 appropriation was approved to continue this project. An FY 2007 appropriation was approved to continue this project at its current level of effort. An FY 2008 appropriation was approved to continue this project at its current level of effort. An FY 2009 appropriation is requested to continue this project.

#### OTHER DISCLOSURES

- \* Expenditures will continue indefinitely.

APPROPRIATION AND EXPENDITURE DATA	COORDINATION	MAP																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Date First Appropriation</td> <td>FY79</td> <td>(\$000)</td> </tr> <tr> <td>First Cost Estimate</td> <td></td> <td></td> </tr> <tr> <td>Current Scope</td> <td>FY96</td> <td>8,061</td> </tr> <tr> <td>Last FY's Cost Estimate</td> <td></td> <td>10,616</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Appropriation Request</td> <td>FY09</td> <td>1,870</td> </tr> <tr> <td>Appropriation Request Est.</td> <td>FY10</td> <td>1,870</td> </tr> <tr> <td>Supplemental Appropriation Request</td> <td></td> <td>0</td> </tr> <tr> <td>Transfer</td> <td></td> <td>0</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Cumulative Appropriation</td> <td></td> <td>3,816</td> </tr> <tr> <td>Expenditures / Encumbrances</td> <td></td> <td>2,517</td> </tr> <tr> <td>Unencumbered Balance</td> <td></td> <td>1,299</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Partial Closeout Thru</td> <td>FY06</td> <td>19,208</td> </tr> <tr> <td>New Partial Closeout</td> <td>FY07</td> <td>0</td> </tr> <tr> <td>Total Partial Closeout</td> <td></td> <td>19,208</td> </tr> </table>	Date First Appropriation	FY79	(\$000)	First Cost Estimate			Current Scope	FY96	8,061	Last FY's Cost Estimate		10,616				Appropriation Request	FY09	1,870	Appropriation Request Est.	FY10	1,870	Supplemental Appropriation Request		0	Transfer		0				Cumulative Appropriation		3,816	Expenditures / Encumbrances		2,517	Unencumbered Balance		1,299				Partial Closeout Thru	FY06	19,208	New Partial Closeout	FY07	0	Total Partial Closeout		19,208	<p>Montgomery College County Government Comprehensive Facilities Plan Interagency Committee - Energy and Utilities Management MCPS Resource Conservation Plan County Code 8-14a</p> <table border="0" style="width: 100%;"> <tr> <td>\$(000)</td> <td>FY09</td> <td>FY10-14</td> </tr> <tr> <td>Salries and Wages:</td> <td>93</td> <td>465</td> </tr> <tr> <td>Fringe Benefits:</td> <td>33</td> <td>165</td> </tr> <tr> <td>Workyears:</td> <td>1.5</td> <td>7.5</td> </tr> </table>	\$(000)	FY09	FY10-14	Salries and Wages:	93	465	Fringe Benefits:	33	165	Workyears:	1.5	7.5	
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