

| B. Expenditure Schedule (000's) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost Elements | (8) <br> Total | $\begin{gathered} \hline \text { (9) } \\ \text { Thru } \\ \text { FY ' } 13 \\ \hline \end{gathered}$ | $\begin{array}{c\|} \hline(10) \\ \text { Estimate } \end{array}$ FY '14 | $\begin{aligned} & \text { (11) } \\ & \text { Total } \\ & 6 \text { Years } \end{aligned}$ | $\begin{gathered} \text { (12) } \\ \text { Year } 1 \\ \text { FY'15 } \end{gathered}$ | $\begin{gathered} \hline(13) \\ \text { Year } 2 \\ \text { FY'16 } \\ \hline \end{gathered}$ | (14) <br> Year 3 <br> FY '17 | (15) <br> Year 4 <br> FY '18 | (16) <br> Year 5 <br> FY '19 | (17) <br> Year 6 <br> FY '20 | (18) Beyond 6 Years |
| Planning, Design \& Supervision | 4,335 | 3,696 | 468 | 171 | 171 |  |  |  |  |  |  |
| Land |  |  |  |  |  |  |  |  |  |  |  |
| Site Improvements \& Utilities |  |  |  |  |  |  |  |  |  |  |  |
| Construction | 10,020 | 2,537 | 2,244 | 5,239 | 3,183 | 2,056 |  |  |  |  |  |
| Other | 812 |  | 271 | 541 | 335 | 206 |  |  |  |  |  |
| Total | 15,167 | 6,233 | 2,983 | 5,951 | 3,689 | 2,262 |  |  |  |  |  |
| C. Funding Schedule (000's) |  |  |  |  |  |  |  |  |  |  |  |
| WSSC Bonds | 15,167 | 6,233 | 2,983 | 5,951 | 3,689 | 2,262 |  |  |  |  |  |

## D. Description \& Justification

DESCRIPTION
This project provides for the planning, design and construction of the upgrades required to enable the T. Howard Duckett Dam to meet current Maryland Department of the Environment (MDE) dam safety standards including the Probable Maximum Flood (PMF) criteria and maximum credible earthquake loadings. The upgrades include parapet walls on both embankments of the dam and three foot thick scour slabs tied into the rock on the downstream side of the dam. This project also includes improvements to the Brighton Dam to assure continued safe operation.

## JUSTIFICATION

## Plans \& Studies

December 13, 2004 letter from MDE; "Comprehensive Safety Evaluation of the T. Howard Duckett Dam", URS Corporation (January, 2007); June 28, 2007 letter from MDE.

## Specific Data

The MDE requested that WSSC perform a safety analysis of the T. Howard Duckett Dam to ensure that the dam can safely pass the Probable Maximum Flood criteria. MDE also requested that the evaluation include an analysis of the dam's ability to withstand the maximum credible earthquake loadings. The safety analysis includes geotechnical and structural evaluations.

## Cost Change

Costs were increased for inflation.
STATUS Under Construction (WSSC Contract No. BD4144A05, ).

## OTHER

The project scope has remained the same. Expenditures and schedule projections shown in block B above are a combination of design level estimates and actual bids. A report with a presentation of alternatives to enable the dam to safely pass the PMF and any other safety requirements was delivered to MDE in January 2007. In June 2007, MDE formally concurred with the recommended alternative. The information shown in Block $G$ is based on the work at Duckett Dam. Brighton Dam is currently in design. The estimated completion date has been pushed back 18 months. The delay is due to addititional design work to include traffic control plans and sequencing of construction, along with a longer construction time on Brighton due to the complexity of the project.

## COORDINATION

Maryland State Highway Administration, Montgomery County Government, Prince George's County Government, Howard County Government, City of Laurel, Maryland Department of the Environment and U.S. Army Corps of Engineers.
NOTE This project supports 100\% System Improvement

| E. Annual Operating Budget Impact (000's) |  |  | FY of Impact |  |
| :---: | :---: | :---: | :---: | :---: |
| Program Costs <br> Facility Costs | Staff |  | $\ldots$ |  |
|  | Other |  | .... |  |
|  | Maintenance |  | .... |  |
|  | Debt Service | 1043 | $\ldots$ | 17 |
| Total Costs |  | 1043 | .... | 17 |
| Impact on Wate | Sewer Ra | 2¢ |  | 17 |

## F. Approval and Expenditure Data ( 000 's)

Date First in Capital Program
Date First Approved
Initial Cost Estimate
Cost Estimate Last FY
Present Cost Estimate
Approved Request, Last FY
Total Expenditures \& Encumbrances
Approval Request FY 15

| FY 07 |
| ---: |
| FY 07 |
| 1575 |
| 14,715 |
| 15,167 |
| 6,024 |
| 6,233 |
| 3,689 |

Supplemental Approval Request Current FY (14)

## G. Status Information

## Land Status:

\% Project Completion: Not applicable

Est. Completion Date:
June 2016

## H. Map Map Reference Code:

