FY 2013 – FY 2022
Proposed Capital Improvement Plan

Worksession #3

June 28, 2012
Debt and Operating Impacts
# Impact on Annual Debt Service

## County Only Debt Service Projections

### Preliminary FY13-FY22 CIP

**Revised***

(Excludes Buckingham Debt)

<table>
<thead>
<tr>
<th>Year</th>
<th>Existing Debt Service</th>
<th>New Debt Service</th>
<th>Total</th>
<th>$ Inc/Dec</th>
<th>% Inc/Dec</th>
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<tbody>
<tr>
<td>FY2012</td>
<td>55,455,410</td>
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<td>55,455,410</td>
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<td>FY2013</td>
<td>55,148,196</td>
<td>2,170,700</td>
<td>57,318,896</td>
<td>1,863,486</td>
<td>3.4%</td>
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<td>FY2014</td>
<td>54,312,787</td>
<td>7,300,453</td>
<td>61,613,239</td>
<td>4,294,344</td>
<td>7.5%</td>
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<tr>
<td>FY2015</td>
<td>52,573,133</td>
<td>13,658,260</td>
<td>66,231,393</td>
<td>4,618,154</td>
<td>7.5%</td>
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<tr>
<td>FY2016</td>
<td>44,017,391</td>
<td>21,571,188</td>
<td>65,588,579</td>
<td>(642,815)</td>
<td>-1.0%</td>
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<td>FY2017</td>
<td>45,742,287</td>
<td>26,769,503</td>
<td>72,511,790</td>
<td>6,923,211</td>
<td>10.6%</td>
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<td>FY2018</td>
<td>40,845,189</td>
<td>34,559,768</td>
<td>75,404,957</td>
<td>2,893,167</td>
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<td>FY2019</td>
<td>38,059,017</td>
<td>38,745,818</td>
<td>76,804,835</td>
<td>1,399,878</td>
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<td>FY2020</td>
<td>35,013,931</td>
<td>46,799,269</td>
<td>81,813,200</td>
<td>5,008,365</td>
<td>6.5%</td>
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<td>FY2021</td>
<td>33,684,004</td>
<td>52,134,739</td>
<td>85,818,743</td>
<td>4,005,543</td>
<td>4.9%</td>
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<td>FY2022</td>
<td>30,402,231</td>
<td>60,425,064</td>
<td>90,827,295</td>
<td>5,008,552</td>
<td>5.8%</td>
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*Includes through 2012C bonds, adopted Schools Referenda, reduction of $6M in County Projects for 2012 Premium
**Incremental Operating and Debt Service Costs**

($ in 000s)

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<tr>
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<tbody>
<tr>
<td>County Operating Costs</td>
<td>6,117</td>
<td>2,060</td>
<td>1,226</td>
<td>453</td>
<td>4,314</td>
<td>2,013</td>
<td>2,338</td>
<td>129</td>
<td>46</td>
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<td>School Operating Costs</td>
<td>544</td>
<td>2,687</td>
<td>1,132</td>
<td>2,687</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
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<td>TBD</td>
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<tr>
<td><strong>Total Operating Costs</strong></td>
<td>6,117</td>
<td>2,604</td>
<td>3,913</td>
<td>1,585</td>
<td>7,001</td>
<td>2,013</td>
<td>2,338</td>
<td>129</td>
<td>46</td>
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* Schools includes one-time start up costs for new spaces

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<tbody>
<tr>
<td>County Debt Service Costs</td>
<td>4,294</td>
<td>4,618</td>
<td>(643)</td>
<td>6,923</td>
<td>2,893</td>
<td>1,400</td>
<td>5,008</td>
<td>4,006</td>
<td>5,009</td>
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<td>School Debt Service Costs</td>
<td>3,961</td>
<td>700</td>
<td>2,265</td>
<td>1,757</td>
<td>4,894</td>
<td>1,902</td>
<td>1,961</td>
<td>1,990</td>
<td>2,091</td>
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<td><strong>Total Debt Service Costs</strong></td>
<td>8,255</td>
<td>5,318</td>
<td>1,622</td>
<td>8,680</td>
<td>7,787</td>
<td>3,302</td>
<td>6,969</td>
<td>5,996</td>
<td>7,100</td>
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</table>

**Total Operating & Debt Service** | 14,372 | 7,922  | 5,535  | 10,265 | 14,788 | 5,315  | 9,307  | 6,125  | 7,146  |
## Operating Budget Impact

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<tr>
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<tbody>
<tr>
<td>Arlington Mill Community Center</td>
<td>3,300</td>
<td>3,300</td>
<td>3,300</td>
<td>3,300</td>
<td>3,300</td>
<td>3,300</td>
<td>3,300</td>
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<tr>
<td>Long Bridge Phase 1 and Fire Station 3</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>400</td>
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<tr>
<td>Technology</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
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<tr>
<td>ConnectArlington</td>
<td>478</td>
<td>500</td>
<td>596</td>
<td>609</td>
<td>621</td>
<td>634</td>
<td>652</td>
<td>670</td>
<td>716</td>
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<tr>
<td>Metro Silver Line</td>
<td>1,700</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>800</td>
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<tr>
<td>Long Bridge Aquatics Facility (net of revenue)</td>
<td>-</td>
<td>340</td>
<td>1,250</td>
<td>1,250</td>
<td>1,250</td>
<td>1,250</td>
<td>1,250</td>
<td>1,250</td>
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<td>Other Parks</td>
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<td>155</td>
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<td>155</td>
<td>155</td>
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<tr>
<td>Office Building and Year Round Homeless Center</td>
<td>376</td>
<td>631</td>
<td>631</td>
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<td>631</td>
<td>631</td>
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<tr>
<td>Lubber Run Community Center</td>
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<td></td>
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<td></td>
<td></td>
<td>111</td>
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<tr>
<td>Trade Center Parking Deck &amp; Storage Facility</td>
<td>165</td>
<td>165</td>
<td>795</td>
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<td>DHS Consolidation</td>
<td>2,343</td>
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<tr>
<td>Fire Station #10</td>
<td>72</td>
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<tr>
<td>Stormwater Management</td>
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<td>-</td>
<td>440</td>
<td>440</td>
<td>440</td>
<td>660</td>
<td>660</td>
<td>660</td>
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<tr>
<td>Columbia Pike &amp; Crystal City Streetcars</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,600</td>
<td>5,600</td>
<td>7,600</td>
<td>7,600</td>
<td>7,600</td>
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<tr>
<td><strong>ANNUAL TOTAL</strong></td>
<td>6,834</td>
<td>8,894</td>
<td>10,120</td>
<td>10,573</td>
<td>14,887</td>
<td>16,900</td>
<td>19,238</td>
<td>19,367</td>
<td>19,413</td>
</tr>
</tbody>
</table>

**INCREMENTAL TOTAL**

|                | 6,117   | 2,060   | 1,226   | 453     | 4,314   | 2,013   | 2,338   | 129     | 46      |

**Notes:**

The operating costs for the Stormwater Management Fund are captured within the Stormwater Management Fund and are not reflected in the operating General Fund.

Annual operating costs for the Columbia Pike streetcar are $3.6 million annually. Planning level operating costs for the Crystal City streetcar are between $3 million and $5 million annually, but will be revised after the project moves past the concept stage.
FY2013 – FY2022
Proposed Capital Improvement Plan

Worksessions
Parks and Recreation
Accomplishments / Projects Underway

• Barcroft Park
  – New baseball stadium in partnership with George Washington University
  – Anticipated completion summer 2012
Accomplishments / Projects Underway

• Henry Wright Park
  – Construction of a new park in Buckingham
  – Anticipated completion summer 2012

• Penrose Square Phase I
  – Construction of new urban plaza on Columbia Pike
  – Anticipated completion fall 2012
Accomplishments / Projects Underway

• Long Bridge Park/Long Bridge Drive
  – Reconstruction of ½ mile section of Long Bridge Drive
  – Anticipated completion fall 2012

• James Hunter Park
  – Construction of new urban park in Clarendon
  – Anticipated completion spring 2013

• Mosaic Park Phase I
  – Final design and construction drawings for a new urban park in Ballston
  – Anticipated completion of construction drawings winter 2013
Accomplishments / Projects Underway

• Highview Park
  – Maintenance capital renovation of the playground, picnic area and ADA
  – Anticipated completion summer 2012

• Virginia Highlands Park
  – Maintenance capital renovation of synthetic field, site circulation, erosion control
  – Anticipated completion summer 2012

• Rocky Run Park
  – Major maintenance capital renovation of the park including lighted synthetic field, lighted bball courts, playground, gazebo
  – Anticipated completion summer 2013
Local Parks and Recreation

(CIP pgs C-9 through C-43)

10 year total = $257.5 M

- **Park Master Plans totals $142.1 million**
  - Focus on completing master plans
  - Long Bridge (phases II and III) accounts for 55%
  - Eight other master plan projects in CIP

- **Parks Maintenance Capital totals $76.4 million**
  - Balance of reducing backlog projects and keeping up

- **Synthetic Turf totals $24.9 million**
  - Keeping up with replacement cycle and adding 4 locations

- **Parks Land Acquisition and Open Space totals $13 million**
2012 Referenda

• Long Bridge Park Phase II, $42.5 M
  – Total project cost for Phase II is $79.2 million including design, construction, soft costs
  – Project funding includes remaining 2004 GO bonds, 2012 GO bonds and developer contribution
  – Critical Milestones
    • Completion of construction drawings winter 2013
    • Permitting and bid award spring 2013
    • Construction start summer 2013
    • Construction completion summer 2015
2012 Referenda

• Long Bridge Park Phase II
  – Phase II includes aquatics, health and fitness facility, featuring a 50-meter X 25-yard competition pool, teaching pool, family leisure pool, therapy pool, wet classrooms/party rooms, cardiovascular and weight training equipment, fitness classrooms, and community space
Local Parks and Recreation

2012 Referenda

• Long Bridge Park Phase II
  – Phase II also includes build out of the surrounding 10-acre park, featuring continuation of the esplanade, public art, flexible event space, trail connections, surface parking, rain garden
2012 Referenda

• Tyrol Hills Park, $185,000
  – This project completes the last phase of the park master plan (adopted by the County Board in 2003)
  – Design of project in FY2013, construction in FY2015
  – Project includes comfort station, picnic shelter, paved plaza, site furnishings, and landscaping
  – Phases I and II have previously been completed through the NC program
2012 Referenda

• Maintenance Capital, $6.868 M
  – Program funds the systematic reinvestment in outdoor facilities
  – Includes athletic fields and courts, lighting, playgrounds, picnic shelters, restrooms, site amenities, trails, parking and specialty facilities

• Parks Land Acquisition and Open Space, $1.0 M
  – Program allows the County to strategically acquire property for parks and open space based on Public Spaces Master Plan and Land Acquisition and Preservation Policy
Local Parks and Recreation

Synthetic Turf Program

• Program total FY2013 – FY2022, $25.6 million
  – County currently has 11 fields, with a 12th field coming on line in 2013 (Rocky Run)
  – Major focus of the program is the renovation/replacement of existing fields at the end of their useful life. Currently averaging 8 years per field
  – Program also includes potential for four new field locations (1 in FY2016, 1 in FY2017 and 2 in FY2022)
    • FY2017 and FY2022 utilize accumulated Field Fund balances. FY2022 also anticipates major partnership or other contribution
Other Major Projects in Out Years

• Jennie Dean Park, $25.6 million
  – Jennie Dean encompasses existing park, five new parcels that have been acquired for park expansion over the last 10+ years and future parcels
  – Initial step is development of park master plan in 2013
  – Implementation of park master plan in phases (FY2015 – FY2021)
Other Major Projects in Out Years

• Four Mile Run Near-Stream Improvements, $15.4 million
  – Master plan was adopted by County Board in 2006,
  – Plan covers lower two miles of Four Mile Run from Shirlington Road to Potomac River
  – Implementation of parks and open space adjacent to the stream will occur in phases (FY2016 – FY2022)
  – Includes joint effort with City of Alexandria for “South Park”
Other Major Projects in Out Years

- **Crystal City Parks and Open Space, $6.9 million**
  - Establishing a variety of high-quality urban parks and plazas as outlined in the Crystal City Sector Plan
  - Implementation of parks in phases as redevelopment occurs (FY2016 – FY2021)

- **Four Urban Parks in Ballston-Virginia Square, $6.7 million**
  - Develop park master plans and phased implementation for Maury, Herselle Milliken, Oakland and Gumball Parks
  - Implementation of the parks in phases (FY2017 – FY2021)
Other Major Projects in Out Years

• **Mosaic Park Phase II, $3.6 million**
  - Park master plan was adopted in 2009
  - First phase being funded through Transfer of Development Rights
  - Final phase will be implemented following acquisition of adjacent private property
  - Funding (FY2019-FY2021)

• **Penrose Square Phase II, $4.1 million**
  - Park master plan was adopted in 2008
  - Phase I currently under construction
  - Phase II will be implemented following acquisition of property (FY2017-FY2019)
Other Major Projects in Out Years

• Glebe and Randolph Park, $3.5 million
  – Develop park master plan and implementation (FY2019 – FY2021)
  – Interim short-term improvements will be constructed in 2012

• Ballston Pond, $1.0 million
  – Develop final design and implementation of trails and boardwalks (FY2021)
FY2013 – FY2022
Proposed Capital Improvement Plan
Worksessions

June 20, 2012
Public Safety IT and Equipment
Public Safety

Background

• Established Public Safety IT Working Group
  • Goal was to create a timely and reliable replacement plan for existing IT needs in order to reduce:
    • system failures and outages
    • costly repairs
    • staff time spent troubleshooting issues
Public Safety

Accomplishments

• Replaced
  • Public Safety Portable Radios
  • Mobile Radios
  • NICE Recorders (ECC only)
  • Westnet Components
  • Police Computer Forensic Equipment
Public Safety Projects Underway

- **Public Safety Network Refresh**
  - Will be completed in 1st Quarter of FY 2013

- **Police/Sheriff Records Management System**
  - Consultant is currently working on this project.
  - Targeted for completion in FY 2014

- **Computer-Aided-Dispatch Equipment Upgrade**
  - Will be completed in FY 2013

- **Mobile Data Computers (390 across all agencies)**
  - 2/3rds completed in FY 2012; 1/3rd to be completed in FY 2013
Projects Underway
Public Safety
(CIP pg D-12)
10 year total = $63.3 million

SOURCES
• Master Lease $55.5 million
• PAYG $ 7.8 million
  TOTAL $63.3 million

USES
• Fire IT $23.2 million
• OEM IT $22.8 million
• Police IT $16.5 million
• Sheriff IT $ 0.8 million
  TOTAL $63.3 million
Above: ECC Video System (FY14)
911 Telephone System and Work Stations (FY16)

Top Right: Magnetometer (FY14)

Bottom Right: Fire Command Vehicle Technology (FY17)
Intelligent Transportation Systems (ITS) and ConnectArlington
## Sources

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<td>2012 Referenda</td>
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<td>2014 Referenda</td>
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<td>Total Bonds</td>
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## Uses

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<td>ConnectArlington</td>
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<tr>
<td>Total Bonds</td>
<td>$17.5 million</td>
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Intelligent Transportation System (ITS)
Transportation System Management (TSM) & Communication Upgrade Program

• Divided into 3 phases:
  – **Phase 1** ($4.5M)
    • Major Construction Completed Feb 2012.
    • 100% funded by ARRA.
  – **Phase 2** ($8.0M)
    • Construction underway.
    • Construction Completion by June 2013.
  – **Phase 3** ($16.6M)
    • 50% design completed.
    • Construction starts in May 2013.
Phase 3

- 25 miles along North Arlington, West Falls Church and Shirlington Corridors.
- Upgrades 93 traffic signals & 30 CCTV cameras.
- 3 Hub Sites
- Partial funding is in place
- Helps Public Safety Radio Ring
- Backbone for ConnectArlington

HUB locations
• CATV franchise expires June 30, 2013
  – County’s “Right of Use” may end with franchise
• County will take lead to implement County-built network
• Payback for future network estimated 10 – 12 years
• Significant community value to be realized
Leveraging Our Opportunities

Public Safety Radio System
• Public Safety bond approved – Towers connected via underground fiber
  – Bond funded, to be completed April, 2013 – 7.35 miles

Dominion Virginia Power improvements – County co-locating fiber
• Kirkwood to Lee Highway to North Moore Street
  – To be completed July, 2012 – 2.2 miles
• Clarendon, North 10th St to Radnor Heights to Boundary Channel Drive
  – In construction, to be completed in April, 2013 – 3.4 miles

“Last Mile” will be built in two stages
• Stage I (est. completion July, 2013)
  – Leverage constructed routes of ITS Phase I and II, PS Radio System
    • Approximately 32 County and 18 APS sites
  – Goal is to move as many if not all 50 sites to the future network
• Stage II (est. completion July, 2015)
  – Leverage core routes of ITS Phase III, PS Radio System - Phase II and Dominion
    • Approximately 20 County and 23 APS sites
Enterprise IT
Accomplishments Since Last CIP

- Construction of new Network Operations Center
- Network Refreshment – Voice Over IP (VoIP)
- Email move to Cloud
- ACE
- BRASS
- Technology for new facilities – Sequoia, Community Centers (Lubber Run, Thomas Jefferson, Drew, etc.)
Current Projects

- Upgrade/Integration of Public Safety Network with County network
- Refreshment of Real Estate System
- Ongoing refreshment of PC’s, servers and storage
- Windows 7 Migration
FY13 – 22 CIP

Sustainment/Refreshment

- 87%
- 13%

Strategic Initiatives
Department of Technology Services

Sustainment/Enhancements to Existing Systems

• PC Replacement/Virtual Desktop
• Network and Telephone Sustainment/Security Enhancements
• Wireless Enhancements
• Data Backup, Storage and Server Replacement
• AC Source Replacement, Remote Access Upgrades
• Payment Portal, Real Estate System and ACE patches and upgrades
• PRISM upgrades and Public Sector Budgeting replacement
Looking Ahead

• Pilot of Mobile Service Requests and Work Order Management

• New PRISM Modules – Compensation, Contracts, Procurement, Projects

• ERMS (new projects)

• Data Integration, GIS Presentation Layer
FY 2013 – FY 2022
Proposed Capital Improvement Plan

Worksession #3

June 28, 2012
Transportation
Construction Underway or Planned for 2012

- Rosslyn Metro Station Access Improvements
- Clarendon Metro Plaza
- Glebe Road Pedestrian Safety Improvements
- Columbia Pike – Wakefield to Four Mile Run
- Pentagon City Multi-Modal Improvements
- Crystal City-Potomac Yard Transitway
- Crystal Drive Two-Way Conversion
- ART Operations and Administrative Office
- Priority Bus Stop Improvements
Accomplishments / Projects Underway

• Rosslyn Metro Station Access Improvements
  – Design and construction of three new high-capacity, high-speed elevators, an additional mezzanine with fare gates and kiosk, emergency exit stairway for improved safety, and related infrastructure
  – Construction began Oct. 2010
  – Excavation 100% completed March 2012
  – Substantial completion July 2013
  – Open to public August 2013

• Project Cost: $49.9 M

Proposed CIP Page E-42
Accomplishments / Projects Underway

• Clarendon Metro Plaza
  – Design and construction of pedestrian related plaza and streetscape improvements at metro access points.
  – Pedestrian paving, lighting, bicycle parking, wayfinding, art, seating, landscaping, other urban amenities.
  – Construction: Summer 2012

• Project Cost: $ 4.8 M
Accomplishments / Projects Underway

• Glebe Road Pedestrian Safety Improvement Project
  – Improvements to intersection corners, sidewalks, ramps, upgraded street lighting, crosswalk striping, pedestrian and traffic signals and signage
  – Construction start: Summer 2012
  – Anticipated completion: 2013
• Project Cost: $ 2.7 M

Improvements at Fairfax Drive, Wakefield Street, and Wilson Blvd. not shown
Accomplishments / Projects Underway

• Columbia Pike – Wakefield to Four Mile Run Drive
  – Streetscape improvements to include wider sidewalks, street lighting, street trees, bus shelters.
  – Phase 1 – Utility undergrounding complete
  – Phase 2 - Undergrounding & streetscape to begin Summer 2012

• Project Cost: $ 7.4 M
Accomplishments / Projects Underway

• Pentagon City Multi-Modal - South Hayes Street
  - Streetscape improvements to include rain bioretention facilities, new mid-block crossings, colored bicycle lanes, new street furniture and street lighting
  - Construction begins Summer 2012
  - Project Cost: $ 9.1 M

• Crystal Drive Two-Way Conversion
  - Three phase project
  - Streetscape improvements to include street lights, wider sidewalks, street trees, new signals and street lighting
  - Construction begins:
    Phase 1 (12th St S to 15th St S): Summer 2012
    Phase 2 (23rd St S to 26th St S): Fall 2012
  - Project Cost: $ 2.3 M
Accomplishments / Projects Underway

- **Crystal City-Potomac Yard Transitway**
  - Design and construct infrastructure for enhanced bus service to support substantial redevelopment in Crystal City and Potomac Yard in Arlington and Alexandria; accommodate future conversion to streetcar
  - Exclusive / Dedicated Running Way
  - 100% Design Complete
  - Construction start Fall/Winter 2012
  - Open service Fall/Winter 2013

- **Project Cost: $16.0M** excludes cost of donated land
Accomplishments / Projects Underway

• ART Operations and Maintenance Facilities
  – New renovated Ops office (2900 S. Eads)
  – Completed design December 2011
  – Awarded construction contract April 2012
  – Complete construction/renovation and move in January 2013

• Project Cost: $ 1.6 M

• ART Bus Replacement and Expansion
  – Purchased three 35-foot CNG buses (NABIs) year ago
  – Received six 31-foot CNG buses (Arbocs) past Spring
  – Received three 35-foot CNG hybrid buses (Designline) with ARRA/TIGGER grant

• Total Costs: $ 4.5 M

Proposed CIP Pages E-18 and E-14
Accomplishments / Projects Underway

• FHWA and VDOT Project Support
  - Arlington County staff support the day to day construction efforts from plan design to the on-site construction inspections for the following FHWA and VDOT projects:
    - Courthouse Road-Arlington Boulevard Interchange
    - Washington Boulevard-Columbia Pike Interchange
    - Glebe Road Bridge Replacement
    - South Joyce Street Improvements

• Total Cost of Projects: $ 100.0 M
10 year total = $981 million

<table>
<thead>
<tr>
<th>Source</th>
<th>Total</th>
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<tbody>
<tr>
<td>Transportation Capital Fund (TCF)</td>
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<tr>
<td>GO Bond</td>
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<tr>
<td>State</td>
<td>$ 141.3 M</td>
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<td>TCF Revenue Bond</td>
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<td>Developer/Other</td>
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Transportation Program Summary
(CIP pgs E-4, E-5)

10 year total = $981 million

<table>
<thead>
<tr>
<th>Program</th>
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<tbody>
<tr>
<td>Transit</td>
<td>$567.5 M</td>
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<tr>
<td>Complete Arlington Streets</td>
<td>$277.7 M</td>
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<tr>
<td>Local Initiatives</td>
<td>$21.5 M</td>
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<tr>
<td>Maintenance Capital (Paving)</td>
<td>$114.2 M</td>
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Pie chart:
- Transit: 58%
- Complete Streets: 28%
- Paving: 12%
- Local Initiatives: 2%
## 2012 Referenda

<table>
<thead>
<tr>
<th>Program/Project</th>
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<td>Paving</td>
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<td>Boundary Channel Drive Interchange</td>
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<td>- Funds design and partial construction</td>
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<td>WALKArlington, BIKEArlington, NTC</td>
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<td>- Same as 2010 Referenda w/ 3% inflation</td>
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<td>- Shirlington Rd. Bridge, Carlin Springs Rd. Bridge</td>
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<tr>
<td>Potomac Yard/Four Mile Run Trail Connection</td>
<td>$30 K</td>
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<tr>
<td>- Local match to federal Transportation Enhancement (TE) grant</td>
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Program Highlights

• Reflects Master Transportation Plan (MTP)
• Total Program Funding and Capital Cost Schedules
  • Columbia Pike, Pentagon City, Crystal City Streets initiatives
  • Columbia Pike and Route 1 Corridor Streetcars
  • Metro Station Access Improvements
• Health & Safety, State of Good Repair, Part of Larger Project, Economic Competitiveness, County Policies
• Leverage external funding sources, timing development opportunities
• Links transportation investments to continued economic competitiveness through steady improvement of transportation access and choice, integrated with private development and redevelopment
Program Investment Areas

- Transit
- Complete Streets
- Local Initiatives

Areas:
- Columbia Pike
- Jefferson Davis
- Rosslyn-Ballston
- County Wide
Transit

10 year total = $567.5 million

Total Revenues

- WMATA: 21%
- TCF Revenue Bonds: 13%
- TIF Revenue Bonds: 10%
- TCF: 21%
- Developer: 7%
- GO Bonds: 5%
- PAYG: 1%
- Federal: 16%
- State: 22%

Total Costs

- Columbia Pike Streetcar: 35%
- Route 1 Streetcar: 26%
- Metro Access: 19%
- CCPY: 6%
- ART: 8%
- SuperStops: 4%
- Other: 1%
- Ongoing Programs: 17%
- 5%
Columbia Pike Streetcar

- Design and construction of 5 mile streetcar system on Columbia Pike from Skyline/County line to Pentagon City
- Joint project with Fairfax County
- Completed Draft Alt Analysis & Environmental Assessment (AA/EA) May 2012
- Critical next steps
  - Action on the Locally Preferred Alternative – Summer 2012 by Arlington and Fairfax County (Prior approval in 2006 by both boards)
  - Application for New Starts/ Small Starts Funding Fall 2012
  - Procure A&E services for PE to 30% design
  - Continue utility undergrounding and relocations
  - Right-of-way and easement acquisition process
- Estimated Project Cost: $198.9 M
  - Funding from Local (incl. TCF), State, Federal grants
Route 1 Corridor Streetcar Conversion

- 2.4 mile streetcar project coordinated with Alexandria City
- Coverts Crystal City Potomac Yard Transitway to streetcar service
- Supports redevelopment in Crystal City, Potomac Yard, Pentagon City
- Critical next steps
  - Complete conceptual engineering studies
  - Identify utility conflicts/relocations
  - Identify right-of-way needs
  - Finalize alignment of district energy undergrounding system
  - Complete 30% preliminary engineering
- Estimated Project Cost: $145.8 M
  - Does not assume federal support
  - Funding from local (TIF, TCF) and state grants
  - Assumes completion of Crystal City street infrastructure improvements
Streetcar Program Benefits

• Supports implementation of County Board adopted General Land Use Plan, Master Transportation Plan and master plans for both corridors
• Promotes transit and pedestrian-oriented development
• Provides essential transit carrying capacity to support planned development
• Promotes mode shift by workers, residents and visitors to walking and transit
• Enhances community connectivity and links to the regional transit (Metrorail/VRE)
• Superior overall performance to bus only options based on local and national experience
Program Delivery Challenges

**Columbia Pike Streetcar**
- Street alignment – east end (Arlington Cemetery, VDOT)
- Coordination w/ adjacent development & infrastructure projects (Washington Blvd/Columbia Pike interchange)
- Utilities
- Right-of-way and easement acquisition
- Maintenance Facility
- **Funding (FTA grant)**
- Community process

**Route 1 Corridor Streetcar**
- Street and intersection alignment – Clark/Bell, 12th Street
- Coordination with adjacent development & infrastructure projects
- **Underground structures**
- Utilities
- Right-of-way and easement acquisition
- Maintenance Facility
- Community process
Advancing Streetcar Program Delivery

- Hire Streetcar Program Manager
- Create inter-departmental streetcar program implementation team
  - property and right-of-way acquisition, procurement, contracting, utility assessment, staffing
- Organize/host public agency panel discussion on experience with alternative project delivery options (Dallas, Denver, Salt Lake City, Los Angeles)
- Retain on-call consultant/industry experts to advise on project delivery options
- Evaluate procurement regulations and processes with regard to alternative project delivery options and modify where appropriate
- Develop and adopt streetcar design guidelines
- Develop and adopt “utility rules of practice”
- Develop overall program management plan
- Schedule quarterly Board briefings
Metro Station Access Improvements
Proposed CIP Page E-40

• Pentagon City Metro Station Second Elevator
  – Design and construction of second elevator near the west wide escalator entrance to improve ADA access and provide elevator redundancy
  – Finalized WMATA concept plan and preliminary cost estimate in 2010
  – Advertised for engineering services in Jan. 2012
  – Complete PE by February 2013
  – Award Design-Build contract in Summer 2013

• Project Cost: $ 5.1 M
Metro Station Access Improvements
Proposed CIP Pages E-30 and E-34

• Crystal City Interim Multimodal Center
  – Phased expansion of bus capacity
  – 18th St. S. between S. Bell and S. Eads Streets
  – Phase 1 Complete June 2014
  – Phase 2 Complete June 2017
  – Estimated Project Cost: $1.1 M

• Crystal City Station Access Improvements
  – New entrance and/or pedestrian tunnel to improve pedestrian access
  – Elevator upgrades
  – Project completed beyond FY 22
  – Project Funds Identified Thru FY22: $17.5 M
  – Estimated Project Cost: TBD

Source: Crystal City Sheraton
Metro Station Access Improvements
Proposed CIP Page E-28

• Courthouse Metro Station Second Elevator
  – Design and construction of an ADA accessible second elevator to Metro station; provide elevator redundancy
  – Project pending result of feasibility study and concept plan
  – Construction FY 20
• Estimated Project Cost: $9.0 M
Metro Station Access Improvements
Proposed CIP Pages E-36 and E-20

• Fairfax Drive Ped & Sidewalk Improvements (Ballston Multimodal Imps.)
  – Plan, design and construct bus stop improvements, additional bicycle parking, expanded pedestrian plaza, and revised curb utilization around entrance to Metro
  – Finalize concept plan by Summer 2012
  – Prepare engineering and design plans in 2013
  – Construct improvements in 2014
  – Project Cost: $ 5.2 M

• Ballston-MU Station Second Entrance
  – Design and construct second entrance to Metro station
  – Project on indefinite hold pending re-initiation of adjacent site redevelopment
  – Timing may be affected by private development
  – Project Funding identified FY 20 – FY 22: $ 24.5 M
Arlington Transit (ART)

Proposed CIP Pages E-14 through E-19

- New Fleet, Equipment Replacement, Enhancement
  - Program Cost: $20.4 M
- ART Fleet Rehabilitation
  - Program Cost: $9.2 M
- ART Operations & Maintenance Facilities
  - New Office – 2900 S. Eads
    - Occupy Space Summer/Fall 2012
  - Site & Facility Improvements (Fueling Station, Bus Wash, Light Duty Maintenance)
    - Begin Construction – Summer 2013
- Land Purchase
  - Future Heavy Maintenance Facility
  - Program Cost: $15.4 M
- FY 12 ART Ridership: 2.5 million
  - Ridership has nearly doubled since FY 09
Ongoing Programs

- **Bus Stop & Shelter Program**
  - Capital maintenance and upgrades
  - New Priority Stop & Shelter Study FY13

  - **Program Cost**: $2.6 M

- **Transit ITS**
  - Expands local/regional tech systems

- **Security Program**
  - Implements Security Plan

  - **Program Cost**: $3.3 M

Proposed CIP Page E-22

Proposed CIP Page E-46
Complete Streets

10 year total = $277.7 million

Total Revenues

- TCF: 38%
- PAYG: 10%
- Federal: 10%
- State: 5%
- TIF: 9%
- TCF Rev: 18%
- Other: 0%
- GO Bonds: 10%

Total Costs

- Arterial Streets: 70%
- Parking, Signage: 3%
- Fiber: 6%
- Bike: 8%
- Walk: 4%
- Trans Systems, Signals, Lights: 6%
- Interchange: 3%

(Check Complete Streets Program)
Boundary Channel Drive Interchange

Proposed CIP Page E-54

- Boundary Channel Drive & I-395 Interchange Improvements
- Scheduled to open with Long Bridge Park Facilities
- Multi-Phase project involving DOD, FHWA, NPS, and VDOT
- Begin federally-required Interchange Modification Study FY 2013
  - Estimated Project Cost: $8.3 M
Columbia Pike Multimodal Improvements

• County Line to South Joyce Street
  – Improved pedestrian facilities, center medians/turn lanes, street trees, lighting, etc.
  – Undergrounding of overhead utilities
  – Opportunities for public art
  – Parallel bike routes on 9th St. S. and 12th St. S. (“Bike Boulevards”)
  – Improvements will achieve a significant portion of the vision for the Columbia Pike Corridor

• Construction to begin at western end (S. Jefferson St. to Four Mile Run) in 2013

• Estimated Project Cost: $81.0 M
Crystal City Street Improvements

Proposed CIP Page E-60

• Multi-modal Improvements
• Scheduled 2013-2015
  – Two-way conversion of Crystal Drive (26th St. S. - 27th St. S. and 33rd St. S. to Rte 1)
  – 12th St. S. extension (Met Park III, Penn Place)
  – 15th St. S. connection to Clark/Bell (aligned at grade)
  – 18th St. S. (Route 1 to Crystal Drive)
  – Demolition of South Clark/Bell (12th St. S. to 20th St. S.)
  – 23rd St. S. Realignment
• Estimated Program Cost: $ 58.6 M
Arterial Complete Streets Programs

Proposed CIP Pages E-76, E-68, E-64

- **Rosslyn-Ballston Streets**
  - Program Cost: $17.0 M
- **Improvements to Major Travel Corridors Outside Principal Business Districts**
  - Walter Reed Drive (Arlington Mill to Four Mile Run)
  - Walter Reed Drive (Glebe to Pollard)
  - Washington Blvd. (Arlington Blvd. to 10th St. N.)
  - Wilson Blvd. (N. Frederick St. to N. Manchester St.)
  - Program Cost: $36.2 M
- **East Falls Church Streets**
  - Funding for design, construction
  - Additional sources required
  - Program Cost: $530 K
Transportation Systems, Traffic Signals & Energy Efficient Lighting

Proposed CIP Pages E-80, E-78

• Transportation Systems & Traffic Signals Program
  – Maintenance program assures that signals and streetlighting provide safe, functional and efficient travel for vehicles, pedestrians and bicycles
  – Program Cost: $ 10.1 M

• Streetlight Energy Efficiency
  – Converts conventional street lighting system to intelligent energy efficient LED lighting system
  – 67% energy savings on streetlights converted to LEDs
  – Remote wireless control
  – Fully dark-sky compliant & Environmental friendly
  – Decreases harmful greenhouse gas emissions resulting from County operations
  – Program Cost: $ 5.7 M
Destination, Parking, and Regulatory Signage
Proposed CIP Page E-62

• Electronic Parking Guidance System
  – Locates available off-street parking spaces real-times
  – Shirlington, Crystal City
• Pay by Mobile Project
• Static Parking Wayfinding
• Upgrade regulatory signs
• Energy efficient traffic signal signs
• Program Cost: $ 2.3 M

Example EPGS
Parking Meters & Technology
Proposed CIP Pages E-70, E-72

• Parking Multi-meters
  – ~2,500 single space meters remaining
  – Conversion complete: FY 2016
  – Program Cost: $2.9 M

• Parking Technology
  – Parking Management Center
  – On-street sensors in metered spaces
  – Paperless Residential Permit Parking Program
  – Convert specific County parking facilities to paid parking
  – County parking facility upgrades
  – Program Cost: $2.55 M
WALKArlington Program

Proposed CIP Page E-82

• Ongoing Program
• Arterial corridor upgrades to improve non-motorized transportation and access to transit, including ADA compliant pedestrian facilities
• Removal of sidewalk obstructions and other accessibility & safety improvements within commercial corridors
• Arterial spot improvements
• Program Cost: $ 11.9 M
BIKEArlington
Proposed CIP Page E-52

- **Ongoing Program**
  - Expansion of bicycle network
  - Construct new off-street shared-use trails
  - Improve on-street facilities
  - Installation of Cycletracks
  - Data collection & other technology enhancements
  - Bike Parking
  - Directional wayfinding
  - Estimated Program Cost: $12.3 M

- **Army Navy Drive Cycle Track**
  - “Road Diet” ¾-mile two-way cycle track in ROW
  - Estimated Project Cost: $5.3 M

- **Potomac Yard/FMR Trail Connection**
  - Shared use trail connection
  - Estimated Project Cost: $786 K
Capital Bikeshare

Proposed CIP Page E-56

- Successful bikeshare program
  - 2 million + trips since 2010 launch
- Filling out R-B and JD Corridors
- Expansion to new neighborhoods
  - Columbia Pike, Shirlington FY13/14 and beyond
- Continue to search for additional revenue sources
- Program Cost: $ 5.3 M
Local Initiatives

10 year total = $21.5 million

Total Revenues
- GO Bonds: 54%
- PAYG: 29%
- Federal: 6%
- State: 11%

Total Costs
- Bridge Renovation: 60%
- Bridge Maintenance: 23%
- NTC: 17%
Neighborhood Traffic Calming

Proposed CIP Page E-89

- Ongoing traffic calming program promotes safety and livability within residential areas of the county
- Balances the uses of residential streets among cars, bikes and people
- Improves the appearance of neighborhoods and creates a safer pedestrian environment
- 75 projects on the waiting list
- Program Cost: $ 3.5 M
Bridge Renovation

Proposed CIP Page E-87

- Bridge Renovation or replacement of County-owned bridges
  - Carlin Springs Road
  - Shirlington Road
  - N. Meade Street
  - Program Cost: $12.9 M
Bridge Maintenance

Proposed CIP Page E-85

- Bridge Maintenance
  - Ongoing Program
  - Continue maintenance of 50 vehicular and pedestrian bridges
  - Program Cost: $ 5.0 M
FY 2013 – FY 2022
Proposed Capital Improvement Plan

Worksession #3
Paving
Annual Street Paving Program

Background Information Proposed CIP Page E-91

• Maintained by Arlington County:
  - 68,533,000 square feet of paved streets
  - 974 lane miles

• Arterial Streets: 25%; Collector Streets: 11%. Residential Streets 64%.

• Maintenance methods:

  Paving - mill and overlay with hot mix asphalt
  Slurry Seal – 3/8 inch thick coating for residential street life extension
  Micro Surfacing – 5/8 inch thick coating for arterial/collector streets life extension
  Re-Builds – full depth complete reconstruction
• Pavement conditions are assessed by a specialized contractor for ride quality, cracking, potholes raveling, streaking, wash-boarding, shoving, bleeding, flushing, crown, etc.

• Expressed in a numerical system called Pavement Condition Index (PCI) with a scale from 100 (new) to 1 (worst possible).

• Current Arlington Average PCI: 68.9.

• About 35% of the streets are below 60 PCI
A PCI 60 street looks like the one in the photo below:

North Potomac Street and 11th Road North
Historical data showed 15 years can wear a new street down to 45 PCI.
A PCI 45 street looks like the one shown below:

North Woodrow Street
• In order to keep the streets from degrading down to the above conditions, the street paving cycle should be kept at 15 years.

• The 15-yr paving cycle requires paving 72 lane miles each year. This equates to $8.7 M/yr.

• In order to improve the current County wide pavement conditions by moving Average PCI from 68.9 to 85, an additional 37.4 lane miles of streets should be paved per year for 10 years. This equates to another $4.5 M/yr.
2012 Pavement Conditions of PCI 68.9

Lane Miles

PCI Group
Expected Pavement Conditions of PCI 85

Lane Miles

PCI Groups

0-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100
• To extend the pavement life during the early age of the streets to last for 15 years, another 14% of the paving cost should be spent for slurry seal and micro-surfacing, and 3% for re-builds.

• The annual cost of the whole paving program (all methods used) maintaining current conditions plus 10-year catch up will be $15.44 M.

• Currently in FY12 about 50 lane miles of streets are paved, and 60 lane miles of streets are slurry sealed, micro-surfaced and re-built. This year’s planned work is to cost $6.85 M in total.
Historical & Proposed Lane Miles Paved

- Arterial
- Residential
- Historical Total
- 10-yr Catchup
- Budgeted


Lane Miles Paved: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120
Paving Cost History & Proposed

Cost in $M

Fiscal Years

Historical
Future
Annual Street Paving Program

Pavement Conditions of All County Streets

Lane Miles

PCI Groups

- Unknown
- Minor Arterial
- Major Arterial
- Neighborhood Principal
- Neighborhood Minor

0-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100
Annual Street Paving Program

A Street with a 0 PCI (17th St. N & N Lincoln St.)
FY 2013 – FY 2022
Proposed Capital Improvement Plan

Worksession #3

June 28, 2012
Metro
## Safety

- NTSB Recommendations
  - Bus and Station Cameras
  - Radio Upgrade
  - Safety Measurement System Dev & Implementation

## Reliability

- Elevators & Escalators
- Bus Maintenance Facilities
- Rail Yard Rehabilitation
- Track Rehabilitation and Replacements
- Network & telecom Upgrades

## Customer Enhancements

- Silver Line Phase I preparation
- Rehab 72 Metro Stations
- New Electronic Payments Program
- SmarTrip ® purchases via website

### Capital Program Uses Category

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<th>Category</th>
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<td>Systems and Technology</td>
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<td>Track and Structures</td>
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<td>Passenger Facilities</td>
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<td>Maintenance Equipment</td>
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<td>Other Facilities</td>
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<tr>
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## Multi-Year Capital Budget (CIP) Source of Funds: FY2013-2018

(dollars in millions)

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### WMATA Debt

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<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
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<td>6,814,500</td>
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(CIP pg E-1)

10 year total = $124.3 million

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<tr>
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<th>FY 14</th>
<th>FY 15</th>
<th>FY 16</th>
<th>FY 17</th>
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<th>FY 19</th>
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<th>FY 21</th>
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</table>

2012 Referenda

$14.6 Million
FY 2013 – FY 2022
Proposed Capital Improvement Plan

Worksession #3

June 28, 2012
Utilities Fund
Mission: Sustain a World Class urban community by building and maintaining cost effective water delivery, sanitary sewer collection, and wastewater treatment systems that provide high-quality services and products while protecting the public health and the environment.

The Utilities Fund is an enterprise fund.

Considerations for CIP Development:

- Master Plans
- Permits/Regulatory Requirements
- Current Fund Balances
- Revenue projections (Infrastructure Availability Fees, etc.)
- Impact on Water / Sewer Rate
- Technology
- Future regulations
Utilities Fund FY 2013-FY 2022 CIP

$ Millions, Percent of $302 Million Total

- Water/Sewer Non-Expansion: $25 million (8%)
- Water Expansion: $51 million (17%)
- Sewer Expansion: $31 million (10%)
- WPCP Non-Expansion: $40 million (13%)
- WPCP Expansion: $155 million (52%)
Utilities Fund

Water Master Plan

- Modeling completed
- Projects programmed into CIP for future growth of the County per land use plans
- Write up of draft plan in process
- Anticipated completion July 2013
Utilities Fund

Water Expansion
Utilities Fund

Projected Water Demand Increase County-wide

Legend

**COG 8 TAZ**

**Demand Growth**

- 0 GPD and Under
- 1 - 30,000 GPD
- 30,000 - 100,000 GPD
- 100,000 - 200,000 GPD
- 200,000 - 500,000 GPD
- 500,000 GPD and Greater

Arlington Pressure Zones

Figure 4-8: Demand Growth within COG 8 Traffic Analysis Zones from 2010 - 2040

0 5,000 10,000 Feet
Utilities Fund

Water Expansion from the Proposed Master Plan
New Water Expansion Projects in Proposed CIP

**Edison St / Carlin Springs** - funding for 8,900 feet of 16-inch water main in from North Edison and 10th St to Arlington Boulevard to provide redundancy and improve fire flow.

**Army Navy County Club access road to 23rd St South** - funding for 3,500 feet of 20-inch water main to provide redundancy to the Crystal City area.

**Fort Barnard Supply** – 4,500 ft of 12 inch water main. This main will run between the intersection of Columbia Pike and South Quincy Street to the Fort Barnard storage facility.
Utilities Fund

North Glebe Road/Williamsburg Blvd.
Status of Existing Project
Proposed CIP Page F-18

- These projects will provide:
  - Capacity to meet County wide buildout
  - Redundancy for a major transmission main that broke in November 2009
- $5 million construction contract awarded for Glebe Road at November 2011 County Board meeting
- Bids opened for Williamsburg Blvd. water main in June 2012 - $6 million
- After the new water mains are in service, the existing main will be taken out of service, inspected, and rehabilitated as necessary using non-expansion funds.
- Called Phase 2 and 3 of the Reservoir Supply Main project in previous CIPs.
Utilities Fund

Water / Sewer Non-Expansion
Water / Sewer Non-Expansion
Proposed CIP Page F-34

Significant changes from prior CIP:

**Water Main Replacement & Rehabilitation Program (R & R)**
- *Increased new funding from $0.7M to $2M for FY13 and from $0.7M-$0.8M/year to $4M/year for the out years.*

**Water Main Cleaning & Lining Program (C & L)**
- *Increased new funding from $0.9M-$0.95M/year to $1.8M/year.*
Over 50% of the water system is comprised of unlined cast iron pipes 8-inches and smaller in diameter built before 1960. With proposed funding, rehab or replacement of the 250 miles of 8-inch and smaller pipe built before 1960 will be completed by 2040.
Utilities Fund

Water Main Cleaning & Relining

Process is shown in detail on the County website at:
http://www.arlingtonva.us/departments/EnvironmentalServices/uepd/waterops/page77297.aspx
Larger diameter water mains have thicker walls and were generally cement lined, increasing their life expectancy.
Utilities Fund

Water / Sewer Non-Expansion
(New CIP Projects / Programs)

Proposed CIP Page F-32

Sewer Main Replacement
Replaces smaller diameter sewer mains by cut and cover when lining is not possible

Customer Service / Asset Management System
Funding for possible acquisition of an integrated software product that could assist with work orders and asset management

North Glebe Road Water Main Rehabilitation
Rehabilitate 36-inch PCCP water main in north Glebe Rd from Walker Chapel to Williamsburg Blvd
Sewer Expansion
(new CIP Project)

Spout Run Sewer

Funding to provide backup for the sewer running between Rosslyn and Spout Run under the Pallisades area (North Highlands neighborhood). The line is over 100 deep in places and should have a parallel line or pump station as backup. Needed funding will be determined after preliminary engineering.
Utilities Fund

Potomac Interceptor Phase 1 Sewer System Improvements

Status of Existing Project

Proposed CIP Page F-9

- This project includes installation of:
  - Approx. 8,900 linear feet of new sanitary sewer pipeline to relieve an existing undersized gravity sewer main that has experienced sewage overflows
  - Replacement of 16” water main and laterals
- Notice to proceed in October 2009
- Construction completion winter 2013
Utilities Fund: Water Pollution Control Plant
Utilities Fund

WPCP Master Plan 2001 Update (Total Cost Estimate: $568 million) Proposed CIP Page F-23

- Expand/upgrade the WPCP to reliably meet effluent standards
- Minimize the environmental impact on the Potomac River & Chesapeake Bay
- Meet future needs from County growth and new regulations

Anticipated completion: Landscaping and Maintenance Building – Fall 2012, Fence Art - 2013
WPCP Master Plan 2001 Update Results

Ahead of schedule & within budget

Arlington Plant Effluent Total Nitrogen, 2010+

Month

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

TN, mg/l

0  2  4  6  8  10  12  14

6.57 6.46 5.33 12.73 8.19 6.46 6.57 1.44 1.52 1.57 1.01 0.81 0.81

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

Monthly avg

before CY11 permit limit

CY11 permit limit
Wet Weather Filtration Facility  Proposed CIP Page F-21

• Retrofit of existing gravity filters to enhance performance of new effluent filters
• Anticipated completion: Summer 2013
• Ahead of schedule & within budget
• Project Cost: $31 million
WPCP Non-Expansion Program

• Annual funding for the repair and replacement of current equipment and infrastructure at the plant, 12 pumping stations, 2 ejector stations, and 2 meter stations

• Includes infrastructure improvements and automation of treatment processes to increase operational efficiency

• Current project summary:
  ASE1 – Summer 2012
  OCB HVAC - Summer 2013
  South Eads Street
  De-nitrification facility modifications – Fall 2012
  Blue Plains
  Other
Potential Future Projects:

WPCP Non-Expansion Capital
  Secondary clarifiers 1, 2, 3
  Scum processing system
  OCB boilers
  Primary fine screens
  Sludge screens
  Green Energy

Improvements to Eads Street Property
  Retaining wall
  Roof replacement
FY 2013 – FY 2022
Proposed Capital Improvement Plan

Worksession #3

June 28, 2012
Stormwater Management Program
Stormwater Management Program

CIP pg F-38

Program Summary

Annual CIP Expenditures ($000)

10-year Program Expenditures ($000)

Proposed 10-year total stormwater capital expenditures = $39.3 million
Accomplishments / Projects Underway
FY 2011 - FY 2012

Completed projects
• Patrick Henry Drive - County’s first Green Streets retrofit project completed, 3rd Quarter 2011
• North Albemarle Street – second Green Streets project completed 1st Quarter 2012
• 23rd Street North drainage improvements, construction completed, 2011

Projects in design
• Donaldson Run Tributary B stream restoration project, 90% designs completed, 2nd Quarter 2011
• Williamsburg Boulevard watershed retrofit, 90% designs completed, 4th Quarter 2011
• Ballston Pond retrofit project, 90% design completed, 1st Quarter 2012
• Design work initiated for several additional watershed retrofit projects, 2011/12
• Sycamore at 24th Street North – design underway
• West Little Pimmit Run – Phase I & II design underway
• John Marshall Drive at Lee Highway – construction scheduled, 2012
Stormwater Management Program

Green Streets Projects

Patrick Henry Drive bioretention facility
Stormwater Master Plan Update

• Technical studies underway

  – County-wide stream inventory to assess stream conditions and prioritize stream restoration projects (Completed, 2011)

  – Watershed retrofit plans to prioritize stormwater quality treatment projects within the public right-of-way and on County property (Field work completed, June 2012; target completion date for retrofit plans: December 2012)

  – Storm sewer capacity analysis to prioritize system capacity and drainage improvements (Priority drainage basin modeling and analysis 90% complete; target completion date: July 2012)

• Community engagement process began in Fall 2011 (including community meetings, website, commission briefings)

• County Board adoption of Stormwater Master Plan expected in 2013
Watershed Retrofit Implementation

- Multiple projects, $5.7M
- Designed to satisfy MS4 Permit & Chesapeake Bay cleanup requirements
- Retrofits also support *Master Transportation Plan* environmental goals
- Multiple benefits, but often challenging and time-consuming to design and costly to construct
- Maintenance is essential

*N. Albemarle St. bioretention retrofit*
Donaldson Run Restoration

Restored Donaldson Run Tributary A, completed in 2006, with visibly lower sediment content

Unrestored Donaldson Run Tributary B with visibly higher sediment content
Partnership with Alexandria, Corps of Engineers, and NVRC.

Construction scheduled to begin in FY 2014, but depends on success of efforts currently underway to seek Congressional revisions to FMR flood control authorization language.

Arlington's share of estimated project design & construction cost is $5.0M (including contingency)

- $4.0M is previously funded by a combination of Stormwater Fund and General Fund monies.
- CIP includes $1.0M funding request.
- STAG funding of $1.9M, if approved, is a reimbursable grant available upon completion of the project; could free up local funds for other critical environmental quality projects.
Percent of major storm sewer pipes that exceeded capacity in 2006

- Roaches Run: 4%
- Westover Branch: 45%
- Spout Run: 20%
- Little Pimmit Run: 13%
- Doctors Branch: 24%
- Lubber Run: 27%
- Crossman Run: 27%
<table>
<thead>
<tr>
<th>Proposed Stormwater Infrastructure Projects</th>
<th>Amount</th>
<th>Fiscal Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sycamore Street &amp; 24th Street</td>
<td>$300K</td>
<td>FY13</td>
</tr>
<tr>
<td>Spout Run - 18th Street between North Utah and North Upton</td>
<td>$1.6M</td>
<td>FY13-14</td>
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<tr>
<td>9th Road North between North Livingston &amp; North Liberty</td>
<td>$600K</td>
<td>FY13-15</td>
</tr>
<tr>
<td>11th Street North @ North Kennebec St</td>
<td>$600K</td>
<td>FY13</td>
</tr>
<tr>
<td>Spout Run - 16th Street North &amp; North Taylor Street to 19th Road North</td>
<td>$1.7M</td>
<td>FY13-16</td>
</tr>
<tr>
<td>Little Pimmit Run Phase IV</td>
<td>$900K</td>
<td>FY14-16</td>
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<tr>
<td>Spout Run - 19th Street North between &amp; North Upton Street to 20th Street North</td>
<td>$2.0M</td>
<td>FY16-17</td>
</tr>
<tr>
<td>Lubber Run – 14th Street North @ North Buchanan Street to 20th Street North</td>
<td>$3.6M</td>
<td>FY16-19</td>
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<tr>
<td>Lubber Run – 14th Street North @ North Buchanan Street to 18th Street North</td>
<td>$1.8M</td>
<td>FY18-20</td>
</tr>
<tr>
<td>Crossman Run – 2400 block of North Rockingham Street to 2600 block of North Roosevelt Street</td>
<td>$1.9M</td>
<td>FY20-22</td>
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<tr>
<td>New projects and priorities from ongoing <em>Stormwater Master Plan</em> update</td>
<td>$2.7M</td>
<td>FY20-22</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$17.7M</strong></td>
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</table>
Pimmit Run at North Dumbarton Street

Storm Sewer Rehabilitation and Replacement Program

10-year total = $3.65M
Four Mile Run Flood Wall Repairs

Estimated Project Cost:

$400K
FY13-14
Storm Sewer Outfall Repair Program

10-year total = $750K
Summary

• Comprehensive stormwater management program implementation is well underway and continues in parallel with *Stormwater Master Plan* update

• Significantly higher Chesapeake Bay nutrient and sediment reductions will likely require additional resources by next MS4 permit cycle, beginning in 2017

• Maintenance costs for watershed retrofits and stream restoration projects will become increasingly significant budget consideration
FY2013 – FY2022
Proposed Capital Improvement Plan

Worksessions

June 20, 2012
Maintenance Capital
Parks and Facilities
Carlin Hall structural members

Detention Center Isolation Valve and Regulator
Constructed in 1992 - 1994

Fire Station 9
Degraded Asphalt

Towers Park – deep cracks in tennis court surfacing

No ADA access to practice courts or gazebo
2012 Referenda

• Facilities Maintenance Capital
  – $3.6 million
• Parks Maintenance Capital
  – $6.8 million

PAYG Funding

• Approximate half cent increase has raised base by $2.8 million
• To meet maintenance capital needs identified in CIP, additional $2 – $4 million potentially needed (i.e. one-time funds)
## Facilities Maintenance Capital Prioritization Methodology

### Urgency (50%)
- Items that require immediate action (leaking roofs)
- Corrections to prevent failures of life/safety systems (fire alarms)

### Facility Condition (30%)
- Reliability of HVAC, electrical and plumbing components or systems
- Preventing accelerated deterioration

### Special Considerations (20%)
- Components or systems that require replacement to meet changing program goals, energy efficiency goals, etc.
- Timely combination with other projects or component replacements

## Parks Maintenance Capital Prioritization Methodology

### Condition (50%)
- Age and life safety
- Ordinance and policy compliance
- Americans with Disabilities Act (ADA) and Consumer Product Safety Commission (CPSC)

### Program Adequacy (30%)
- Usage, community need, program demand
- Industry standards, County standards

### Special Considerations (20%)
- Project synergies, economies of scale, project readiness, adopted master plans, and County Board priorities
CIP Working Group Recommendation 1

Eliminate the maintenance capital backlog by the end of FY 2017, using a gradual ramp up funding approach on the backlog (catch-up)

CIP Reflects

Working down the backlog to an acceptable level by end of FY 2018
Facilities MC Funding vs Need
as Proposed in CIP FY13 - FY22

% of Cumulative Need Funded  % of Cumulative Need Unfunded

FY 13: 39%  61%
FY 14: 69%  31%
FY 15: 76%  24%
FY 16: 63%  37%
FY 17: 73%  27%
FY 18: 78%  22%
Parks MC Funding vs Need
as Proposed in CIP FY13 – FY22

- % of Cumulative Need Funded
- % of Cumulative Need Unfunded

<table>
<thead>
<tr>
<th>FY 13</th>
<th>FY 14</th>
<th>FY 15</th>
<th>FY 16</th>
<th>FY 17</th>
<th>FY 18</th>
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<td>80%</td>
<td>70%</td>
<td>57%</td>
<td>46%</td>
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<td>20%</td>
<td>30%</td>
<td>43%</td>
<td>54%</td>
<td>65%</td>
<td>74%</td>
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CIP Working Group Recommendation 2

To pay for catch-up and keep-up, use bonds, PAYG, and operating where appropriate. Bundle projects as total rehabs or renovations to reduce costs, reduce service disruptions and allow bonding.

CIP Reflects

Project lists include bundling of various work features and increased use of bonds.
## Bundling examples - Parks Projects

<table>
<thead>
<tr>
<th><strong>Highview Park Modernization</strong> – design and construction for full replacement of rectangular and diamond athletic field sod, new irrigation, athletic field lights, restroom, storage building, stage, picnic shelter, site amenities, site circulation, drainage, landscaping, ADA</th>
<th><strong>$1,400,000</strong> Bond</th>
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</thead>
<tbody>
<tr>
<td><strong>Virginia Highlands Park Modernization</strong> – design and construction for full replacement of athletic field sod, new irrigation, site amenities, site circulation, ADA and construction for full replacement of the six tennis courts, two basketball courts, court lighting on all courts, site amenities, drainage, site circulation, ADA. Court project was designed in FY2012</td>
<td><strong>$1,963,000</strong> Bond</td>
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</table>
### Bundling examples - Facilities Projects

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<tr>
<th>Project</th>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td><strong>Residential Program Center</strong></td>
<td>Exterior finishes, replace boilers, air handling unit, replace ceramic tile, recaulk, carpet, replace passenger cab finishes, ceiling tiles, paint, mill asphalt</td>
<td>$1,383,000 Bond</td>
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<tr>
<td><strong>Woodmont Center</strong></td>
<td>roof replacement, replace flooring, repoint masonry</td>
<td>$1,060,000 Bond</td>
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</table>
CIP Working Group Recommendation 3

Ensure all the required resources (staffing, planning, design, and procurement) are sufficient to address identified catch up and keep up needs, building requirements into base budgets, and considering close-out funds and new funds as other options.

CIP Reflects

Addition of a project programmer in each Facilities and Parks
- focus on efficient scoping, estimating, and documentation
- update database as a starting point and build in design and other soft costs for true total project budget
Overstrengths added to both Parks and Facilities
FY2013 – FY2022
Proposed Capital Improvement Plan

Worksessions

June 20, 2012
Facilities
Projects Completed

- Fire Station #3
- Artisphere
- NOC II
- Stambaugh Building at Sequoia
Projects Completed

Lubber Run Amphitheater

Dressing Room at Lubber Run
Projects Underway

Arlington Mill Community Ctr

Aurora Hills Library Interiors

Fire Station #4 HVAC

Carlin Hall Exterior and Structure
Projects Undeway

Detention Center Work Stations

Future UPS at ECC

North Side Salt Tank Temporary Repairs

In Planning and Design

- Virginia Square Black Box Theatre (C-63)
- Ballston Garage 8th Level Slab (C-92)
- ADA Survey Remaining Facilities (C-108)

Mobilizing

- Fire Training Academy (C-100)
Facilities - $356.2M
(C-65 through C-68)

- MC, Furnishings, Critical Systems, ADA (30%)
- Public Safety: Fire Stations & Firing Range, Alt ECC (13%)
- 2020 Acquisition & CSW (12%)
- Storage, N. Side Salt & Land Acquisition (9%)
- Community Centers (13%)
- Court House Square, DHS & Master Planning (15%)
- Ballston & Trades Parking Garages (7%)
- Energy Efficiency (1%)
Facilities - $356.2M
(C-65 through C-68)

- **Maintenance Capital**
  - $71.8M over 10 years
  - Integrated with ADA, Furnishings, Energy Efficiency, and Critical Systems Infrastructure

- **Public Safety Facilities**
  - Fire Stations, Firing Range, Fire Training Academy, Alt ECC

- **Government Center**
  - 2020 Acquisition/Conversion, Court House Square, C/P Interiors, Court Square West Deconstruction

- **Community Centers**
  - Lubber Run, Arlington Mill, Aurora Hills

- **Support Facilities**
  - Storage Facility, Trades 3rd Level Parking, Ballston Garage

- **Lease Program**
  - Potential DHS Consolidation

- **Master Planning**
Facilities Maintenance Capital
$3.625M (C-71)
  – Bond: FY 13 @ $1.04M, FY 14 @ 2.59M
  • Supplemented by PAYG $3.2M + $5.8M

North Side Salt Facility
  – $206K in FY 14
  – Planning for Replacement and Site

*Does not include 2020 Acquisition via Subject to Appropriation Bonds (IDA)
### Bond and PAYG Summary

Table: FY 13-16 = $120.9 M

- **$50.1 New Funding**
- **$70.8 Previously Approved**

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<td><strong>$19,795</strong></td>
<td><strong>$10,575</strong></td>
<td><strong>$50,144</strong></td>
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Future Facility Funding Decisions

• FY 13 and FY 14 (C-66)
  – IDA for 2020 acquisition
  – $635K design for 3rd level parking at Trades
  – Some Maintenance Capital projects
  – Projects supporting Critical Systems Infrastr
  – DHS Consolidation (C-94)(Operating + PAYG)

• FY 15 and FY 16 (C-66)
  – $3.1M 3rd level parking at Trades
  – $2.2M North Side Salt Replacement
Facilities — New Items

- Critical Systems Infrastructure (C-116)
- Furnishings/Finishes (C-102)
  - Both will be integrated with MC program
- Trades 3rd Level Parking (C-104)
- Storage Facility (C-84)
Facilities Planning Challenges

• Master Planning (C-110)
  • Notional Sequence
    – FY 13/14 Court House Square
    – FY 14 26th and Old Dominion
    – FY 15 FS#4 /Clarendon Mixed Use Project
    – FY 16 Edison Complex
    – FY 17 FS#7/Crystal City
    – FY 18 Aurora Hills Complex

• Lubber Run Community Center (C-80)
  – $1.4M in FY 17, $25.7 in FY 19
Public Safety Facilities

Fire Station Locations by Station Number (C-78)

Police and Sheriff Firing Range (C-98)
Government Center Facilities

• 2020 Office Building Acquisition (C-73)
• Court Square West Deconstruction (C-119)
  – $1.7M in FY 17

• Court House Square (C-76)
  – Planning First
  – Phasing Coordinated with Adjacent Private Development
  – Timing Related to Potential Lease Renewal in 2018
  – Notionally $40M FY 20-22
FY2013 – FY2022
Proposed Capital Improvement Plan

Worksessions

June 20, 2012
Neighborhood Conservation
NC funds total $78.1 million
New = $62.7 million
Previously Approved = $15.4

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<tr>
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<th>2014</th>
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<td>FYs 15&amp;16</td>
<td>FYs 17&amp;18</td>
<td>FYs 19&amp;20</td>
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<td>$12,000</td>
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<td>$57,000</td>
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<td>PAYG</td>
<td>$1,015</td>
<td>$1,076</td>
<td>$1,143</td>
<td>$1,212</td>
<td>$1,285</td>
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<tr>
<td>Total</td>
<td>$12,015</td>
<td>$12,076</td>
<td>$12,143</td>
<td>$13,212</td>
<td>$13,285</td>
<td>$62,731</td>
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