VRE Financial Plan Analysis
Updated January 15, 2016

VRE and PFM have been working on the development of a long term strategic Financial Plan since February 2015. The primary objective of this effort was to provide a financial forecast (revenue, operating expense and capital expense) to match varying operational and service profiles that VRE might pursue in its efforts toward implementing its System Plan 2040. Five scenarios were developed for evaluation and presented to the Operations Board at the July 2015 and September 2015 Board meetings.

In September 2015, the Operations Board asked PFM to develop full financial plans for two of the five service profiles: Natural Growth and System Plan 2040. Now that VRE has concluded its FY 2017 budget development process, this effort will resume.

The purpose of this report is to recap the key conclusions and takeaways presented in September 2015 from the analysis of the full range of service profiles. Additionally, this summary provides detailed description of the two profiles (Natural Growth and System Plan 2040) chosen for further development. These two scenarios have been adjusted to reflect two inputs stemming from the FY 2017 budget process: (1) updated ridership and (2) a 5% increase in the local subsidy for FY 2017.

Key Conclusions

Without intending to minimize the level of detailed analysis underpinning each of the five scenarios, we offer the following key conclusions and takeaways from the review of each of the original scenarios, individually and as a group:

A. Under any service profile, forecast growth in VRE’s operational expenses is driven primarily by VRE’s contractual agreements with its operator and the obligation to pay access fees to host railroads. Taken together, these categories of cost were budgeted at $31.5 million in VRE’s FY 2016 budget, nearly 40% of its total operating expenses. Whether VRE pursues an expansion of its service profile or continues existing service levels, operating expenses will escalate. Even with a multi-year plan for regular, modest fare increases and regular local subsidy increases (such as 3% every other year), additional revenue will be needed for VRE to be financially balanced over the long term.

B. Regardless of scenario, VRE has a core level of capital investment that is significant. While each scenario has a differing level of capital investment, all scenarios have a common universe of needed capital investment totaling $2.6 billion that must be met over the period from FY 2016 to FY 2040. This capital need is primarily driven by the VRE-DRPT-CSX MOU to complete a third main track between Washington, D.C. and Fredericksburg (including expansion of the Long Bridge over the Potomac River) and the need to maintain, renew and replace
existing rolling stock over the next 20+ years. VRE is able to fund approximately $2.2B of the $2.6 billion, on average, between the various scenarios, using estimates of both federal formula funds and the funds provided by other parties, including the funds committed by DRPT for the 3rd track project. However, the core amount of capital expenditures cannot be fully defrayed with existing sources of funds alone. Moreover, there is a significant imbalance between the capital funds available for projects within the NVTA region and those outside the NVTA region. This imbalance constrains the ability to implement needed capital improvements in non-NVTA jurisdictions and limits the funds available to the system as a whole.

C. **Raising fares to close the financial gap is not a viable solution on its own.**

Ridership Equal assumes that fares are raised to close the financial gap, resulting in an average fare of $20.56 incurred in FY 2040 (in 2016 dollars, vs. the current average fare of $7.90) and a reduction in ridership due to expectations regarding the elasticity of demand. The other scenarios are based on every other year fare increases of 3%; however, to close the annual operating financial gaps in the Modified Service Expansion and System Plan 2040 scenarios using fare increases alone, average fares would need to be raised to $15.04 and $13.81, respectively. While these levels of fare increases eliminates financial deficits for operations, it also drives VRE’s fare box recovery ratio to 68% and would tend to skew the ridership away from those who do not have transit benefits or are otherwise particularly sensitive to fare levels. Moreover, VRE has not consistently implemented multiple fare increases over a short period of time as contemplated by the financially balanced versions of these two scenarios; in practice, a significant rate rising regime could result in lower ridership than the model’s demand elasticity assumption contemplates.

D. **Higher ridership due to enhanced service levels could defray future operating & capital costs.** As noted above in A and B, VRE faces escalating costs even under the status quo. The financial forecasts for enhanced service levels in the Modified Service Expansion and System Plan 2040 scenarios illustrate that VRE could realize certain operating economies of scale and generate additional revenue from new riders, despite the higher capital expenditures needed to implement these scenarios.

E. **VRE needs additional revenue beyond the sources which exist today, even if it is to maintain the status quo.** Each of VRE’s existing sources of revenue has its limitations. State and federal sources of funds are outside of VRE’s direct control and are subject to a wide range of influencing factors. Local subsidies are limited by individual jurisdictions’ ability to pay, and their need to balance their local budgets to meet many competing priorities. Lastly, fares are driven by market factors, and demand is elastic. A reliable and predictable revenue stream is needed to meet a forecast of known escalating costs tied to contractual obligations with VRE’s operator and the railroads. A new revenue stream is also needed to fund a core amount of capital expenditures necessary to maintain, renew and replace VRE’s equipment to assure a state of good repair. A reliable and predictable revenue
stream for both operating and capital (equipment-related) expenses would permit VRE to be financially sustainable over the long term.

**Scenario Descriptions and Key Findings**

Based upon discussion with the Operations Board at their May 15, 2015 meeting and discussions with VRE executive, finance, planning and operating staff, five scenarios were developed, as described in Appendix A. The underlying assumptions for service level, ridership, operating expense and capital expenditures imbedded in each scenario are detailed in the charts in Appendices B and C.

Since then, VRE has been pursuing its FY 2017 budget development activities. The budget process has allowed VRE to develop new data relevant to the financial forecast. This data has been incorporated into the two service profiles chosen for further development.

**Natural Growth Scenario:** This scenario reflects VRE continuing to serve our base market and the “natural” growth in the region that is expected, based on Metropolitan Washington Council of Governments cooperative forecasts of regional growth in population and employment. This is achieved with longer trains, longer platforms, more parking and expanded rail yards. The Natural Growth scenario assumes fares and the local subsidy grow at 3% in alternating years.

**Key Findings for Natural Growth Scenario:** Average additional annual operating revenue would be needed ($6.2M in the near term, defined as FY 2017-FY 2030, to $15.1M in the longer term, FY 2031 to FY 2040) primarily for contracted train operations and access fees. The future capital requirements for this scenario would be $3.2B, primarily for track and signal, station and parking, and rolling stock investments. Of this $3.2B, approximately $800M is funded, $1.5B is assumed to be available from other parties, and $870 M remains unfunded. It is important to note that $2.6B of this capital requirement represents core capital projects that would be required regardless of the scenario chosen. Even though the number of trains remains at 32 peak-oriented trips per day, ridership levels would increase to over 30,000 riders per day in the out years because of the increased capacity.

**System Plan 2040:** This scenario forecasts the financial outcomes expected with the full implementation of VRE’s System Plan 2040. Assuming that fares and the local subsidy grows at 3% every other year, this scenario forecasts a need for additional revenue to achieve financial balance.

**Key Finding for System Plan 2040 Scenario:** Average additional annual revenue needed would be similar to the previous scenario ($4.2M in the near term to $16.1M in the longer term) primarily for contracted train operations and access fees. This scenario needs slightly less additional operating revenue compared to the Modified Service Expansion scenario because the higher ridership generates more fare revenue. The future capital requirements would also be similar (to the Modified Service Expansion scenario) at $4.1B, primarily for track and signal, station and parking, and rolling stock investments. Of this
$4.1B, approximately $830M is funded, $2B is assumed to be available from other parties, and $1.3B remains unfunded. The increased capacity with the additional trains and lengthened span of service, including midday service would result in approximately 52,000 daily riders.

Next Steps

The remaining tasks to be accomplished in the development of the Financial Plan are as follows:

- Provision of answers to the specific questions raised by the Operations Board in September concerning the relationships between riders, revenue and net cost for different service profiles
- Identification of any additional information that Board members would like to have provided concerning the financial forecast
- Development of multi-year fiscally balanced financial plans for the Natural Growth and System Plan 2040 scenarios, including conclusions on the characteristics of the needed additional revenue sources. This information will be presented to the Operations Board in February.

The goal is to have a consensus at the conclusion of the February meeting on the desired service profile for the commuter rail system, the funds needed to achieve this level of service, and the actions to be taken to seek the additional funds.
Appendix A

Financial Plan Scenarios

A financial forecast was developed for each of five service profiles, as outlined below. Two of the five, Natural Growth and System Plan 2040 were selected by the Operations Board for further review.

**Baseline** – financially constrained alternative, service limited to what can be sustained with 3% every other year increases to fares and local subsidy.

**Ridership Equal** – no increase to service through FY 2040 with fares set at levels needed to close the financial gap and control ridership growth.

**Natural Growth** – ridership growth to reflect regional increases in population and employment with additional service provided through lengthening of existing trains.

**Modified Service Expansion** – attraction of additional riders through enhancement of the VRE service: additional peak trains; limited entry into reverse-peak and off-peak markets; and construction of the Gainesville-Haymarket extension.

**System Plan 2040** – attraction of additional riders through enhancement of the VRE service as described in System Plan 2040: additional peak trains; full entry into reverse-peak and off-peak markets; and construction of the Gainesville-Haymarket extension.
Appendix B

The charts below show the average additional operating revenue needed for each scenario, and the breakdown of total capital expenditures required to support the buildout of each scenario.

### Average Annual Additional Revenue Needed

- **Ridership Equal**: $18,822,000
  - Assuming 3% Subsidy Growth EOY--FY16-40: $2,523,000
  - Assuming 0% Subsidy Growth--FY16-40: $1,356,000
- **Natural Growth**: $31,138,000
  - Assuming 3% Subsidy Growth EOY--FY16-40: $12,513,000
  - Assuming 0% Subsidy Growth--FY16-40: $14,366,000
- **Modified Service Expansion**: $44,947,000
  - Assuming 3% Subsidy Growth EOY--FY16-40: $2,523,000
  - Assuming 0% Subsidy Growth--FY16-40: $12,513,000
- **System Plan 2040**: $52,240,000
  - Assuming 3% Subsidy Growth EOY--FY16-40: $9,219,000
  - Assuming 0% Subsidy Growth--FY16-40: $12,244,000

### Total Capital Expenditures (FY16-FY40)

- **Ridership Equal**: $18,822,000
  - Unfunded: $767,000
  - Potentially Funded: $806,000
  - Funded: $823,000
- **Natural Growth**: $31,138,000
  - Unfunded: $1,356,000
  - Potentially Funded: $1,490,000
  - Funded: $1,945,000
- **Modified Service Expansion**: $24,947,000
  - Unfunded: $1,266,000
  - Potentially Funded: $1,947,000
  - Funded: $1,947,000
- **System Plan 2040**: $52,240,000
  - Unfunded: $1,303,000
  - Potentially Funded: $1,947,000
  - Funded: $1,947,000
Appendix C

The charts below show the average annual additional operating revenue and capital expenditure funding needed for each scenario in order to create a financially balanced plan.