

**NORTHERN VIRGINIA TRANSPORTATION AUTHORITY****MEMORANDUM**

**TO:** Chair Phyllis J. Randall and Members  
Northern Virginia Transportation Authority

**FROM:** Mayor Jeanette Rishell, Finance Committee Chair

**DATE:** April 14, 2022

**SUBJECT:** Proposed FY2023 Operating Budget

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1. **Purpose:** To seek the Northern Virginia Transportation Authority (NVTA) adoption of the proposed FY2023 NVTA Operating Budget as recommended by the Finance Committee and outlined below.
2. **Suggested Motion:** *I move Authority adoption of the proposed FY2023 Operating Budget as presented in Attachment A.*
3. **Background:** Due to the ongoing uncertainty surrounding the impacts of COVID-19 on the economy and the processes, some of the Authority's proposed expenses for FY2023 will remain at the FY2022 levels. The Regional Transportation Planner position and Website Modernization and Consolidation new initiatives are proposed to be phased in, based on feedback from the Finance Committee. Responses to the Finance Committee are included as Attachments B & C.
  - A. **Operating Fund Budget:** The Operating Fund Budget is the central accounting point for operating and administrative expenses of the Authority. The Operating Fund and related budget can only be funded with resources in excess of those required or exempted from debt service obligations. Prior guidance for this budget has not changed. Current drivers of the Operating Budget are segmented into two categories. The first category is base budget escalations triggered by inflation, contract terms and required service extensions. The second category is for new initiatives, which includes requests such as additional staffing and service activities.
  - B. **Operating Budget Carryover:** The FY2023 Proposed Operating Budget includes \$619,192 of excess budget carryover resulting from prior expenditure savings which reduces the required budget contribution transfer from the Regional Revenue Fund.

#### **4. Operating Budget Base Budget Changes:**

##### **A. Personnel Expenses**

- i. Annual performance-based salary increases for staff are targeted to be in line with member jurisdictions. Since jurisdiction budgets are concurrently in development, we present a percentage increase that will not be exceeded, and which may be modified based on member jurisdiction market and performance increases, once those budgets are passed. This year we propose the not-to-exceed percentage to be 5.0%, based predominantly on current rate of inflation and announcements of jurisdiction proposed budgets.
- ii. Benefits are based on actual costs such as the Annually Required Contribution determined by the Virginia Retirement System (VRS) and such items as the Commonwealth of Virginia - Local Choice Health Insurance rates.

##### **B. Professional Services**

- i. The largest change is expected to be with Audit Services which will be going through a contract renewal. Two enhancements are requested for FY2023 related to preparation of the Authority to receive, administer, and account for Federal grants, either with a member jurisdiction/agency or as a regional Authority. This is a goal in the Authority's adopted Five-Year Strategic Plan. Additionally, consideration of routine duplicate payment audits is proposed.

##### **C. Technology/Communications**

- i. All IT services are outsourced. This is still the most cost-efficient approach and provides the greatest operational flexibility. We need to increase the router capacity, internet service speed, and data storage. Where these expenses are triggered by new staff members (for the first time), these costs are included in those new initiatives. Outside of staffing changes, capacity increases are still needed to meet daily demands and a transition to the mandatory Microsoft Office 365 platform.
- ii. The Authority's outsourced cloud-based accounting systems will need to have some modules added to keep pace with Government Accounting Standards Board (GASB) pronouncements and the growing complexity of our accounting needs. The new GASB related modules relate to amortization and financial statement note disclosures for leases (GASB 87) and subscription-based technology (GASB 96). The growing complexity and quantity of the Authority's fixed assets require moving this process from a spreadsheet function and incorporation directly into the General Ledger accounting system.

#### **D. Administrative Expenses**

- i. Over 70% of this expense category is the office lease. Staff will discuss potential options to mitigate additional cost escalations. Where triggered by new staff, these increases are included in those new initiatives.

### **5. New Initiatives:**

#### **A. Accounting Technician Position**

- i. This position is required to meet the increasing workload related to the Authority's expanding portfolio of adopted and appropriated projects. This portfolio is expanding by upwards of \$500 million in projects every two years. Currently, there is \$2.5 billion awarded to 106 projects through 142 Standard Project Agreement (SPAs) (contracts). The Agreed Upon Procedure Audit (AUP) for duplicate reimbursement requests noted these packages can be as large as 1,000 pages.
- ii. The Authority is increasing the number of new projects through the bi-annual funding programs at a faster rate than projects are being completed and closed. Therefore, additional staffing is needed to ensure timely and accurate processing of project reimbursement requests.
- iii. Per the Authority's SPA, finished projects require some level of fiscal accountability on the part of the Authority for the economic life of the project. The economic life will be at least decade(s) in the case of capital asset purchases, or perpetual in the case of land. With \$2.5 billion in approved projects, it is time to start building the capacity to manage the Authority's financial interest in completed projects.
- iv. Routine staffing changes at member localities due to promotions, staff increases, and retirements is resulting in an unexpected annual need to provide support to new jurisdiction hires to ensure accurate and timely annual certifications for monthly 30% distributions as well as maintaining a pipeline of smooth project reimbursements.
- v. The last personnel increase for the Finance Team occurred in FY2019. Projected through FY2022, the volume of reimbursement requests will increase 75%, with the dollar value of those reimbursements increasing 72% from the FY2019 level. We are observing an increase in project complexity which results in more complex reimbursement requests and reviews.
- vi. The last position allocated for financial activities was a Financial Analyst. Since we are looking at transaction volume and value increases, it is time to add additional clerical capacity to address the rapidly increasing volume levels.
  - a. Salary & Benefits \$129,811
  - b. Equipment & Furniture \$6,140
  - c. Office Space/Technology Charges/General Admin Expenses \$15,013

## **B. Regional Transportation Modeler and Regional Transportation Planner Positions**

- i. NVTA's Transportation Planning and Programming (TPP) Team currently comprises five positions. The TPP team is responsible for updating NVTA's two primary responsibilities – TransAction and the Six Year Program (through bi-annual updates) – and provide programmatic oversight to NVTA's increasing project portfolio (currently \$2.5 billion, 106 projects, 142 SPAs). In addition, the TPP team leads the development and ongoing maintenance of Program Information Management and Monitoring System (PIMMS) and the NoVA Gateway dashboard, maintains/updates the Transportation Technology Strategic Plan, the Authority's Five-Year Strategic Plan, collaborates with the Commonwealth on the development of Regional Multi-Modal Mobility Program (RM3P), organizes the annual Northern Virginia Transportation Roundtable, and manages the annual NOVA region CMAQ/RSTP strawman process as well as a Bus Rapid Transit (BRT) Working Group. The TPP team is responsible for coordinating both of NVTA's Statutory Advisory Committees (TAC/PCAC), together with one Standing Committee (PPC), and a CEO Advisory Committee (TTC).

These two new positions are required to meet the TPP team's increasing workload related to:

- a. Strategic Plan Goal of developing in-housing of transportation modeling for the benefit of the region.
- b. Expansion of data analytics capacity and capabilities, especially related to the transportation impact of the projects that NVTA funds, as well as providing benefits to member jurisdictions.
- c. Resumption of regular briefings with jurisdiction/agency staff to discuss and track the status of projects funded with regional revenues. A process discontinued due primarily to the pressing needs of other obligations.
- d. Proactively planning for a regional BRT system.
- e. Development of transportation technology related projects, such as RM3P.
- f. Regular updates to the Transportation Technology Strategic Plan and related deliverables, potentially including regional transportation policies.
- g. Proactive consideration and application of NVTA's core values – equity, sustainability, and safety.
- h. The Authority's expanding portfolio of adopted and appropriated projects necessitates additional TPP team resources (in addition to Finance Team resources) as activities

such as processing reimbursement requests are the responsibility of both teams.

**C. Regional Transportation Modeler**

- i. As part of the current TransAction update, and consistent with NVTAs Strategic Plan, in-house modeling tools (much of the technology for this has been installed) will be developed allowing NVTAs staff to replicate the consultant team’s modeling work. While it is envisioned that future TransAction updates will continue to be outsourced due to their scale, NVTAs staff will increasingly be able to take onboard modeling work related to the Six Year Program update, including congestion reduction relative to cost evaluations, Long Term Benefit assessments, TransAction project ratings, and running the model due to project scope changes. This will save on future consultant expenses and possibly provide new modeling services to the region.
- ii. The new Regional Transportation Modeler will support modeling activities, including data entry, model runs, interpretation of results, and reporting. In addition to the in-housing of modeling work currently performed by consultants, this new hire will afford NVTAs staff the opportunity to undertake re-evaluation of projects and other model-based analyses of travel behaviors that are either not feasible today, or the project sponsor must pay for. These costs often run \$25 to \$35 thousand per run, per project.
- iii. The new Regional Transportation Modeler will also support more general data analytics, leveraging the existing GIS capabilities available to the TPP team. In particular, this will enable expanded analysis of travel trends that was initiated during the pandemic, as well as analysis of the transportation impact of the projects (and types of projects) that are funded using NVTAs regional revenues.
  - a. Salary & Benefits \$173,262
  - b. Equipment & Furniture \$6,140
  - c. Office Space/Technology Charges/General Admin Expenses \$16,823

**D. Regional Transportation Planner**

- i. Updates to TransAction and NVTAs Six Year Program have five-year and two-year update cycles, respectively. TransAction updates take three years, while Six Year Program updates take at least one year. NVTAs staff resources will be increasingly stretched with these overlapping primary responsibilities.
- ii. The new Regional Transportation Planner will provide greater bandwidth to the TPP team, enabling the resumption of regular briefings with jurisdiction/agency staff to discuss the status of projects funded with regional revenues. These briefings provide valuable opportunities to identify and mitigate any risks to successful project completion.

- iii. Proactively planning for a regional BRT system has been identified through TransAction as a critically important initiative to develop an integrated network of BRT lines providing fast, frequent, and reliable transit services that will reverse the region's dependence on driving alone. The new Regional Transportation Planner will provide the necessary bandwidth to advance this initiative.
- iv. Development of transportation technology related projects, such as RM3P, is an increasingly important topic for which NVTa is ideally positioned given its regional perspective and multimodal approach.
- v. Regular updates to the Transportation Technology Strategic Plan and related deliverables potentially including regional transportation policies.
- vi. Capacity to make applications for Federal grants on a regional scale and as part of a jurisdictional team basis, and become a designated recipient.
- vii. Proactive consideration and application of NVTa's core values – equity, sustainability, and safety.
- viii. The Authority is increasing the number of new projects at a faster rate than projects are being finished. Therefore, additional staffing is needed to ensure timely and accurate processing of project reimbursement requests.
- ix. Per the Authority's SPA, finished projects require some level of fiscal accountability on the part of the Authority for the economic life of the project. The economic life can be decade(s) in the case of capital asset purchases or perpetual in the case of land. This necessitates a minimal level of oversight of finished projects beyond SPA closure.
- x. Routine staffing changes at member localities and regional agencies due to promotions, staff increases, and retirements, is resulting in an unexpected annual need to provide support to new jurisdiction and agency hires. Such support activities will ensure they are familiar with NVTa's processes related to updates to TransAction and NVTa's Six Year Program, as well as for other activities including SPA management, reimbursement requests, PIMMS, and the NoVA Gateway dashboard.
- xi. This position is proposed to not be filled prior to January 1, 2023
  - a. Salary & Benefits \$74,059
  - b. Equipment & Furniture \$6,140
  - c. Office Space/Technology Charges/General Admin Expenses \$8,602

**E. Internet Capacity Upgrade:** Upgrade of internet access service speed and transition to fiber optic backbone to support increased use of modeling software, GIS applications, file size capacity in terms of access, and storage. This is needed regardless of additional staff increases. Enhancement Cost: \$10,000, Ongoing Expense

- F. Website Modernization and Consolidation:** The NVTa websites have not had a full professional design review and are becoming increasingly difficult to update, maintain and improve, and has shown system stability concerns. TransAction has a separate website, as does the NoVA Gateway Dashboard, and expert advice is needed to determine if a consolidation is in order and if so, how it could be accomplished. Enhancement Cost: \$125,000 in FY2023 and \$125,000 in FY2024. One Time Expense.
- G. Federal Grant Funding Recipient Qualifications:** With expanded Federal grant availability, the Authority is in a position to assist the region in the application for Federal grants either on a regional, direct, or partnership basis. The Authority's external auditor can assist in preparing the Authority to receive, administer, and account for Federal grants, either directly, with a member jurisdiction, or as a regional agency. Enhancement Cost: \$12,000. One Time Expense.
- H. Duplicate Payment AUP Audits:** As noted in earlier Committee discussions, the responsibility to prevent duplicate payments rests with the project sponsors. However, NVTa can also choose to enhance its system of internal controls through routine Agreed Upon Procedure (AUP) Audits seeking to discover duplicate payments made to project sponsors. Enhancement Cost: \$18,500. Ongoing expense with the potential for reimbursement based on policy changes.
- I. Economic Impact Study:** As part of the Five-Year Strategic Plan, the Authority has commissioned an economic impact study to determine the economic value to the region and Commonwealth of the Authority's most recent Six Year Plan Update and 30% distributions. Enhancement Cost: \$13,500. Occurs approximately every two fiscal years.

**Attachments:**

- A. Proposed FY2023 Operating Budget
- B. Operating Budget Questions 1 & 2
- C. Operating Budget Question 3
- D. Economic Impact Study (Single Page Handout)

| Northern Virginia Transportation Authority<br>Base/Proposed FY2023 Operating Budget |                           |                                |                |   |                |                                  |
|---|---------------------------|--------------------------------|----------------|---|----------------|----------------------------------|
| INCOME:   | Adj Base Budget<br>FY2022 | Proposed Base<br>Budget FY2023 | Budget<br>Note | Proposed Budget<br>w/FY2023 Initiatives | Budget<br>Note | Initiative-Prev Bdg<br>Change \$ |
| Budget Carryforward including Operating Reserve                                     | \$ 979,422                | \$ 1,114,202                   |                | \$ 1,114,202                            |                | \$ 134,780                       |
| 330000 Other Income   |                           |                                |                |   |                |                                  |
| <b>Total Income</b>   | <b>\$ 979,422</b>         | <b>\$ 1,114,202</b>            |                | <b>\$ 1,114,202</b>                     |                | <b>\$ 134,780</b>                |
| <b>EXPENDITURES:</b>  |                           |                                |                |   |                |                                  |
| <b>410000 Personnel Expenditures</b>  |                           |                                |                |   |                |                                  |
| 110 Salaries-Regular Pay  | \$ 1,626,074              | \$ 1,852,061                   | 4.A.i          | \$ 2,102,061                            | 5.A,C,D        | \$ 475,987                       |
| 130 Health & Dental Benefits  | 256,478                   | 311,180                        | 4.A.ii         | 375,414                                 | 5.A,C,D        | 118,937                          |
| 131 Payroll Taxes   | 127,529                   | 146,308                        | 4.A.i          | 169,702                                 | 5.A,C,D        | 42,173                           |
| 132 Retirement VRS  | 134,596                   | 152,514                        | 4.A.ii         | 177,451                                 | 5.A,C,D        | 42,855                           |
| 133 Life Insurance  | 20,807                    | 24,818                         | 4.A.ii         | 28,168                                  | 5.A,C,D        | 7,361                            |
| 134 Flex Spending/Dependent Care  | 881                       | 1,007                          |                | 1,165                                   | 5.A,C,D        | 284                              |
| 135 Workers Comp  | 1,708                     | 2,037                          |                | 2,312                                   | 5.A,C,D        | 604                              |
| 137 Disability Insurance  | 18,834                    | 19,834                         | 4.A.ii         | 30,619                                  | 5.A,C,D        | 11,784                           |
| <b>Subtotal Personnel Costs</b>   | <b>\$ 2,186,907</b>       | <b>\$ 2,509,760</b>            |                | <b>\$ 2,886,892</b>                     |                | <b>\$ 699,985</b>                |
| <b>420000 Professional Service</b>  |                           |                                |                |   |                |                                  |
| 210 Audit & Accounting  | \$ 48,000                 | \$ 38,000                      | 4.B.i          | \$ 68,500                               | 5.G&H          | \$ 20,500                        |
| 220 Bank Service  | 750                       | 750                            |                | 750                                     |                | -                                |
| 230 Insurance   | 7,835                     | 9,240                          |                | 9,240                                   |                | 1,405                            |
| 240 Payroll Service   | 2,636                     | 2,810                          |                | 3,283                                   |                | 647                              |
| 245 Consulting Services   | 25,000                    | -                              |                | -                                       |                | (25,000)                         |
| 260 Public Outreach & Regional Event Support  | 49,925                    | 49,925                         |                | 63,425                                  | 5.I            | 13,500                           |
| 261 Legal Services/Bond Counsel   | 10,000                    | 10,000                         |                | 10,000                                  |                | -                                |
| 262 Financial Advisor Services  | 36,951                    | 36,955                         |                | 36,955                                  |                | 4                                |
| 263 Bond Trustee Fees   | 2,700                     | 2,700                          |                | 2,700                                   |                | -                                |
| 264 Legislative Services  | 78,690                    | 80,420                         |                | 80,420                                  |                | 1,730                            |
| 265 Investment Custody Fees   | 25,000                    | 25,000                         |                | 25,000                                  |                | -                                |
| <b>Subtotal Professional Services</b>   | <b>\$ 287,487</b>         | <b>\$ 255,799</b>              |                | <b>\$ 300,272</b>                       |                | <b>\$ 12,785</b>                 |
| <b>430000 Technology/Communication</b>  |                           |                                |                |   |                |                                  |
| 310 GL Financial Reporting & Invest Monitoring/Mgt Sys                              | \$ 94,685                 | \$ 88,245                      | 4.C.ii&iii     | \$ 88,245                               |                | \$ (6,440)                       |
| 320 HW SW & Peripheral Purchase   | 5,000                     | -                              |                | 10,620                                  | 5.A,C,D        | 5,620                            |
| 330 IT Support Svc Incl Hosting   | 29,304                    | 33,880                         |                | 46,220                                  | 5.E            | 16,916                           |
| 335 GIS/Project Monitoring & Management/Modeling                                    | 211,728                   | 32,800                         |                | 32,800                                  |                | (178,928)                        |
| 340 Phone Service   | 13,160                    | 14,772                         |                | 16,872                                  | 5.A,C,D        | 3,712                            |
| 350 Web Development & Hosting   | 9,185                     | 10,805                         |                | 135,805                                 | 5.F            | 126,620                          |
| <b>Subtotal Technology/Communication</b>  | <b>\$ 363,062</b>         | <b>\$ 180,502</b>              |                | <b>\$ 330,562</b>                       |                | <b>\$ (32,500)</b>               |
| <b>440000 Administrative Expenses</b>   |                           |                                |                |   |                |                                  |
| 410 Advertisement   | \$ 1,500                  | \$ 1,500                       |                | \$ 4,000                                |                | \$ 2,500                         |
| 411 Memberships & Subscriptions   | 10,544                    | 14,392                         |                | 15,992                                  |                | 5,448                            |
| 412 Duplication & Printing  | 13,610                    | 13,610                         |                | 13,610                                  |                | -                                |
| 413 Furniture & Fixture   | 14,000                    | -                              |                | 7,800                                   | 5.A,C,D        | (6,200)                          |
| 414 Hosted Meetings   | 4,500                     | 5,000                          |                | 5,000                                   |                | 500                              |
| 415 Mileage/Transportation  | 11,000                    | 11,000                         |                | 11,000                                  |                | -                                |
| 416 Misc Expenses   | -                         | -                              |                | -                                       |                | -                                |
| 417 Office Lease  | 193,976                   | 207,196                        | 4.D.i          | 236,696                                 | 5.A,C,D        | 42,720                           |
| 418 Office Supplies   | 7,100                     | 7,100                          |                | 7,475                                   | 5.A,C,D        | 375                              |
| 419 Postage & Delivery  | 700                       | 700                            |                | 700                                     |                | -                                |
| 420 Professional Develop, Training & Conferences                                    | 23,650                    | 21,450                         |                | 23,000                                  |                | (650)                            |
| <b>Subtotal Administrative Expenses</b>   | <b>\$ 280,580</b>         | <b>\$ 281,948</b>              |                | <b>\$ 325,273</b>                       |                | <b>\$ 44,693</b>                 |
| <b>Expenditure Subtotal</b>   | <b>3,118,036</b>          | <b>3,228,010</b>               |                | <b>3,842,999</b>                        |                | <b>724,964</b>                   |
| <b>Operating Reserve (20%)</b>  | <b>\$ 574,710</b>         | <b>\$ 645,602</b>              |                | <b>\$ 768,600</b>                       |                | <b>\$ 193,890</b>                |
| <b>Equipment Replacement Reserve &amp; Replenishment</b>                            | <b>31,486</b>             | <b>50,000</b>                  |                | <b>50,000</b>                           |                | <b>18,514</b>                    |
| <b>Reserve Subtotal</b>   | <b>606,196</b>            | <b>695,602</b>                 |                | <b>818,600</b>                          |                | <b>\$ 212,404</b>                |
| <b>Total Expenditures</b>   | <b>\$ 3,724,232</b>       | <b>\$ 3,923,612</b>            |                | <b>\$ 4,661,599</b>                     |                | <b>\$ 937,368</b>                |
| <b>Transfer From Regional Revenue Fund</b>  | <b>\$ 2,744,809</b>       | <b>\$ 2,809,410</b>            |                | <b>\$ 3,547,397</b>                     |                | <b>\$ 802,588</b>                |
|   |                           |                                |                |   |                |                                  |
| <b>One Time Costs of Initiatives:</b>   |                           |                                |                |   |                | <b>\$ 189,920</b>                |
| <b>Net FY22 to FY23 Base Budget Growth:</b>   |                           |                                |                |   |                | <b>\$ 747,448</b>                |

Updated: 2/9/2022



## Responses to Finance Committee questions arising from 1/20/2022 meeting.

**Q1 What are the potential cost savings that can be achieved by not outsourcing modeling activities?**  
**(Both the new Regional Transportation Planner and Transportation Modeler positions contribute to the potential cost savings/costs avoided as outlined below.)**

| Activity   | Potential Cost Savings/Avoided  | Remarks   |
|--|---|---|
| Congestion Reduction Relative to Cost (CRRC) project ratings, TransAction (formerly HB599) project ratings, and estimation of Long-Term Benefit (LTB) status for nine member jurisdictions, are three quantitative evaluations required for NVTAs Six Year Program and/or TransAction.   | <ul style="list-style-type: none"> <li>\$160,000 (CRRC 10/12/2017)</li> <li>\$155,100 (CRRC &amp; LTB 11/13/2019)</li> <li>Outsourced to AECOM</li> </ul> <p>Typical savings in excess of \$150,000 every two years</p>   | HB2313 (2013) and HB599 (2012) include requirements that necessitate calculation of CRRC and TransAction project ratings, together with LTB. These requirements do not apply to any other region in, or department of the Commonwealth. These statutory requirements necessitate the use of sophisticated model-based evaluations. NVTAs cannot fulfill its primary responsibilities to the region without this analysis, i.e., could not adopt updates to TransAction or the Six Year Program.   |
| <p>Re-evaluation of approved projects in the event of significant changes to project scope. NVTAs cannot currently conduct such re-evaluations and must outsource requiring additional budget approvals.</p> <p>Re-evaluation entails re-coding of the project characteristics in NVTAs transportation simulation model, several re-runs of the model (typically for two horizon years), recalculation of the projects CRRC rating, and finally a comparison with CRRC ratings for all other projects in the impacted funding program. This latter step determines the continuing eligibility for the project.</p> | <ul style="list-style-type: none"> <li>Potomac Yard Metrorail Station 2<sup>nd</sup> Entrance re-evaluation</li> <li>\$14,000 (8/14/2018)</li> <li>Outsourced to AECOM</li> <li>Actual cost savings will depend on the scale of the change in project scope.</li> </ul> <p>Although this example of re-evaluation involved a relatively minor level of effort to re-code a reduction in the number of entrances to the new station, scope changes could potentially entail more complex (and time-consuming) re-coding efforts, such as a revised intersection or interchange, new terminal points for widening projects, or changes in transit capacity.</p> | <p>This activity was required for a previously approved project in order to re-evaluate CRRC following a project scope change. This re-evaluation was needed to confirm continued justification for allocation of regional revenues to said project, i.e., to meet Virginia Code requirement. It is anticipated that future scope changes for approved projects will trigger similar re-evaluations.</p> <p>Given that the Authority does biannual Six Year Program Updates (adding additional outyears), it is anticipated that there will be an increase in the frequency of project scope change requests. Requests of this nature requires a rerun of the model (against all of the projects evaluated in the funding cycle) and the posting of updated scores.</p> |

| Activity  | Potential Cost Savings/Avoided  | Remarks  |
|---|---|--|
| <p>Independent verification of consultant model-based analysis by NVTA staff is a best practice for due diligence purposes. However, this activity has not previously occurred because NVTA does not have in-house transportation modeling tools.</p>   | <ul style="list-style-type: none"> <li>• Since this is a new activity, there is no specific cost history to identify potential cost savings, although the costs avoided are likely to be in the range of \$150,000 to \$250,000.</li> <li>• Independent verification offers the potential to identify and resolve errors related to the overall modelling process, including model development, coding of projects, analysis of results, and general fitness for purpose, i.e., an understanding of model strengths and weaknesses.</li> <li>• In the absence of independent verification, belated identification and resolution of errors may lead to additional costs and schedule overruns, which in turn may delay (and possibly undermine) NVTA's funding programs.</li> </ul> | <p>Inclusion of projects in TransAction is a statutory pre-requisite for SYP eligibility. The ability for NVTA staff to independently verify the quality of consultant work related to TransAction, including scenario analysis, will greatly enhance due diligence, as well as provide a layer of redundancy that is not currently feasible.</p> <p>Due diligence is essential to ensure that NVTA discharges its primary responsibilities (transportation planning and programming) in a manner that is consistent with industry standards and that can withstand technical scrutiny or legal challenge. If TransAction does not meet these high standards, this will undermine the basis for NVTA's funding programs, which in turn will impair NVTA's ability to invest its regional revenues in transportation projects to meet its unanimously approved vision for the region.</p> |
| <p>NVTA adopted principles for assessing LTB in December 2014, with an expectation that assessment of LTB status would begin ten years after NVTA's funding stream was established. LTB assessments would reflect a look back at completed projects, using the best data and tools available at the</p> | <ul style="list-style-type: none"> <li>• Since this is a new activity, there is no specific cost history to identify potential cost savings.</li> <li>• Outsourcing this activity is estimated to cost \$150,000 every two years.</li> </ul>  | <p>LTB status is currently only assessed once every two years during SYP updates. The proposed activity would provide LTB status shortly after SYP adoption, taking into account newly approved projects. This mid-cycle analysis will raise awareness of member jurisdictions' LTB status prior to submitting applications in response to the subsequent CfRTP.</p>   |

| Activity   | Potential Cost Savings/Avoided   | Remarks  |
|--|--|--|
| <p>time. However, the LTB principles did not address the frequency with which LTB status would be updated, nor how this would relate to the timing of NVTAs's funding programs.</p> <p>Currently, LTB status is assessed once every two years as part of the project evaluation process for each SYP update, outsourced for convenience to NVTAs's consultant. However, LTB status is not reassessed following SYP adoption. This means that applicants, especially the nine member jurisdictions to whom LTB status applies, have an outdated knowledge of their respective LTB statuses at the time they are submitting the next round of applications.</p> <p>Mid-cycle updating of LTB status is a desirable practice to guide member jurisdictions following each SYP update adoption, prior to the subsequent Call for Regional Transportation Projects (CfRTP).</p> |  |  |
| <p>Ad hoc modeling will enable NVTAs staff to utilize in-house modeling tools to conduct analyses not directly related to TransAction or the SYP, such as scenario ('what if') analyses, origin-destination</p>  | <ul style="list-style-type: none"> <li>• COVID Travel Trends analysis</li> <li>• \$44,570 (June 2020)</li> <li>• Outsourced to AECOM</li> <li>• Potential cost savings would depend on the scope and scale of the desired analysis.</li> </ul> | <p>NVTAs is currently unable undertake any ad hoc modeling analyses to, for example, evaluate the regional impact of projects, programs, or policies such as transportation technologies and regional Bus Rapid Transit. Ad hoc modeling will enable new transportation planning analyses to</p> |

| Activity  | Potential Cost Savings/Avoided  | Remarks  |
|---|---|--|
| analyses, corridor analyses, and deeper dives into travel behavior. |   | occur without outsourcing. These activities are commonplace for any regional transportation planning organization but are not currently conducted in Northern Virginia.  |
| Modeling services to member jurisdictions (possible)                | N/A – no budget provision available – but offers a potential revenue stream | The development of a regional transportation model and qualified NVT staff may provide a (for-fee) modeling service to smaller jurisdictions that do not currently have in-house modeling capability. This is a longer-term possibility. |

**Q2 What are NVT's unique responsibilities, compared to similar bodies in the region? (Both the new Regional Transportation Planner and Transportation Modeler positions will support the execution of these responsibilities.)**

- TransAction is required by Virginia Code, and NVT can only fund projects it contains. The TransAction transportation simulation model is based on transportation networks and travel demand forecast data generated and maintained by MWCOG/TPB. NVT is statutorily required to employ a more sophisticated multimodal model than MWCOG/TPB or any of NVT's member jurisdictions.
- Although the TPB is responsible for the Constrained Long-Range Plan (CLRP) known as Visualize 2045, and the Commonwealth is responsible for the statewide plan VTRANS, neither has the VA Code requirements which are placed on NVT for a multimodal long range transportation plan for Northern Virginia (TransAction). NVT staff coordinates with TPB and Commonwealth staff to ensure a strong awareness of these plans.
- Virginia Code (HB599:2012), which only applies to NVT, includes language necessitating simulation modeling. We address the HB599 requirement in TransAction, but it also flows into NVT's SYP.
- NVT's SYP is the basis on which NVT allocates regional revenues. VA Code (HB2313:2013) requires NVT to 'give priority to projects that achieve the greatest congest reduction relative to cost', which necessitates sophisticated simulation modeling. The types of multimodal solutions that NVT considers for funding cannot be evaluated without sophisticated modeling tools given saturated travel conditions in NoVA. This code language is specific to NVT.
- HB2313 also includes the Long-Term Benefit requirement, again unique to NVT. The estimation of 'benefit' requires sophisticated simulation modeling.
- TPB's CLRP takes into account 'a reasonable expectation of funding' but TPB does not make programming/funding decisions. Instead, TPB's modeling is focused on air quality conformity.

- The Commonwealth's SYIP allocates state/federal revenues, and SmartScale is used (in part) to support this process. To our knowledge, the Commonwealth does not use modeling at the same level of sophistication as required of NVTa. This would not be necessary to evaluate most SmartScale applications outside of large population centers.
- In accord with the Authority's adopted Five-Year Strategic Plan, technology investments in modeling software, server and data storage capacity have largely been deployed through prior budget actions. The modeling software in deployment was selected through collaboration with and recommendations from NVTa's jurisdiction and agency partners. The deployed system was chosen for the best compatibility with regional partner systems and processes, as well as compatibility with MWCOG/TPB's data and model.

**Q3. Provide Authority metrics and staffing evolution since HB2313.**

|   | FY2014         | FY2015         | FY2016         | FY2017         | FY2018           | FY2019           | FY2020           | FY2021           | FY2022<br>(YTD/Projected) | FY2023<br>Proposed   |
|---|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|---------------------------|----------------------|
| Balance Sheet - Audited Financials            | \$ 289,500,245 | \$ 506,949,822 | \$ 688,725,027 | \$ 766,105,741 | \$ 949,989,650   | \$ 1,081,514,260 | \$ 1,123,805,100 | \$ 1,284,818,080 | \$1.43 Billion (Est)      | \$1.55 Billion (Est) |
| Interest Earnings - Audited Financials/Est.   | \$ 82,845      | \$ 391,165     | \$ 2,499,750   | \$ 4,303,385   | \$ 9,796,579     | \$ 28,068,177    | \$ 24,380,216    | \$ 2,601,012     | \$ 9,000,000              | \$ 20,000,000        |
| Operating Budget Allocation/Transfer          | \$ 1,135,105   | \$ 1,065,776   | \$ 1,100,262   | \$ 1,654,659   | \$ 1,922,195     | \$ 2,203,248     | \$ 2,963,793     | \$ 2,769,220     | \$ 2,893,793              | \$ 3,547,397         |
| Local Distribution Funds Disbursed/Projected  | \$ 85,225,940  | \$ 92,183,026  | \$ 95,093,539  | \$ 99,328,170  | \$ 102,390,189   | \$ 78,969,189    | \$ 82,418,396    | \$ 104,575,960   | \$ 112,623,565            | \$ 119,452,260       |
| Funding Program Value                         | \$ 196,000,000 | \$ 346,000,000 |                | \$ 466,000,000 | \$ 1,285,000,000 |                  | \$ 539,000,000   |                  | \$500,000,000 Est.        |                      |
| Project Reimbursements (By FY Processed, YTD) | \$ -           | \$ 4,058,791   | \$ 69,306,373  | \$ 99,693,171  | \$ 86,833,587    | \$ 64,509,774    | \$ 147,771,018   | \$ 123,047,379   | \$32,814,501 YTD          |                      |
| SPA's Approved & Pending /Cumulative          | 33             | 37 / 70        |                | 12 / 82        | 44 / 126         |                  | 21 / 147         |                  | 11/158                    |                      |
| Completed SPAs (By Funding Program)           | 30             | 20             |                | 4              | 4                |                  | 0                |                  | TBD                       |                      |
| Active SPAs (By Funding Program)              | 3              | 17             |                | 8              | 40               |                  | 21               |                  | 100 Total Open            |                      |
| TransAction Prep Period                       |                |                |                |                |                  |                  |                  |                  |                           |                      |
| Funding Program Update Period                 |                |                |                |                |                  |                  |                  |                  |                           |                      |

|                                   |   |   |   |   |   |    |    |    |    |    |
|-----------------------------------|---|---|---|---|---|----|----|----|----|----|
| Total FTEs                        | 6 | 6 | 6 | 8 | 9 | 10 | 12 | 12 | 14 | 17 |
| CEO                               | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  |
| Executive Assistant to CEO        |   |   |   |   |   |    |    |    | 1  | 1  |
| Communications/Public Outreach    |   |   |   |   | 1 | 1  | 1  | 1  | 2  | 2  |
| Executive Management              | 1 | 1 | 1 | 1 | 2 | 2  | 2  | 2  | 4  | 4  |
| Transportation Planners           | 2 | 2 | 2 | 3 | 3 | 3  | 5  | 5  | 5  | 6  |
| Modeler/Planner                   |   |   |   |   |   |    |    |    |    | 1  |
| Planning & Programming            | 2 | 2 | 2 | 3 | 3 | 3  | 5  | 5  | 5  | 7  |
| CFO                               | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  |
| Asst. CFO                         | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  |
| Board Clerk/Comms/Executive Asst. | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 1  | 1  |
| Investment & Debt Manager         |   |   |   | 1 | 1 | 1  | 1  | 1  | 1  | 1  |
| Financial Analyst                 |   |   |   |   |   | 1  | 1  | 1  | 1  | 1  |
| Accounting Technician             |   |   |   |   |   |    |    |    |    | 1  |
| Finance & Administration          | 3 | 3 | 3 | 4 | 4 | 5  | 5  | 5  | 5  | 6  |



Economic Impacts of  
**\$3.3 BILLION**<sup>1</sup>  
 in Regional Funding through the  
**NORTHERN VIRGINIA  
 TRANSPORTATION  
 AUTHORITY**

This study was completed by Richmond, VA-based Chmura Economics & Analytics.

<sup>1</sup> NVTa FY2014-FY2025 Actual and Estimated Revenues

## KEY TAKEAWAYS

### CREATING JOBS

**30,000**

**JOBS CREATED**  
through NVTa  
project funding,

**90%**

are staying in NoVa, adding to the  
tax base and ensuring the future  
growth and vitality of the region.



### SAVING TRAVEL TIME

NVTa'S PROJECTS ARE EXPECTED TO **SAVE VIRGINIA CITIZENS**

**225**

**MILLION HOURS**  
of travel time by 2030, or

**\$3.12**

**BILLION DOLLARS**  
in monetary savings, giving the  
taxpayers more than

**130%**

**RETURN ON THE TAXES**  
they entrust to NVTa.



### TRIGGERING MOMENTUM

NVTa'S FUNDING OF

**\$2.5**

**BILLION**

in 106 multimodal regional  
projects has triggered another

+

**\$2.7**

**BILLION**

in additional committed  
investments

+

**\$1.9**

**BILLION**

in investments  
yet to be identified

=

**\$7.1**

**BILLION**

in critical transportation  
projects to NoVa



The taxes paid by Northern Virginians to NVTa, benefit the entire Commonwealth through increased economic activity.