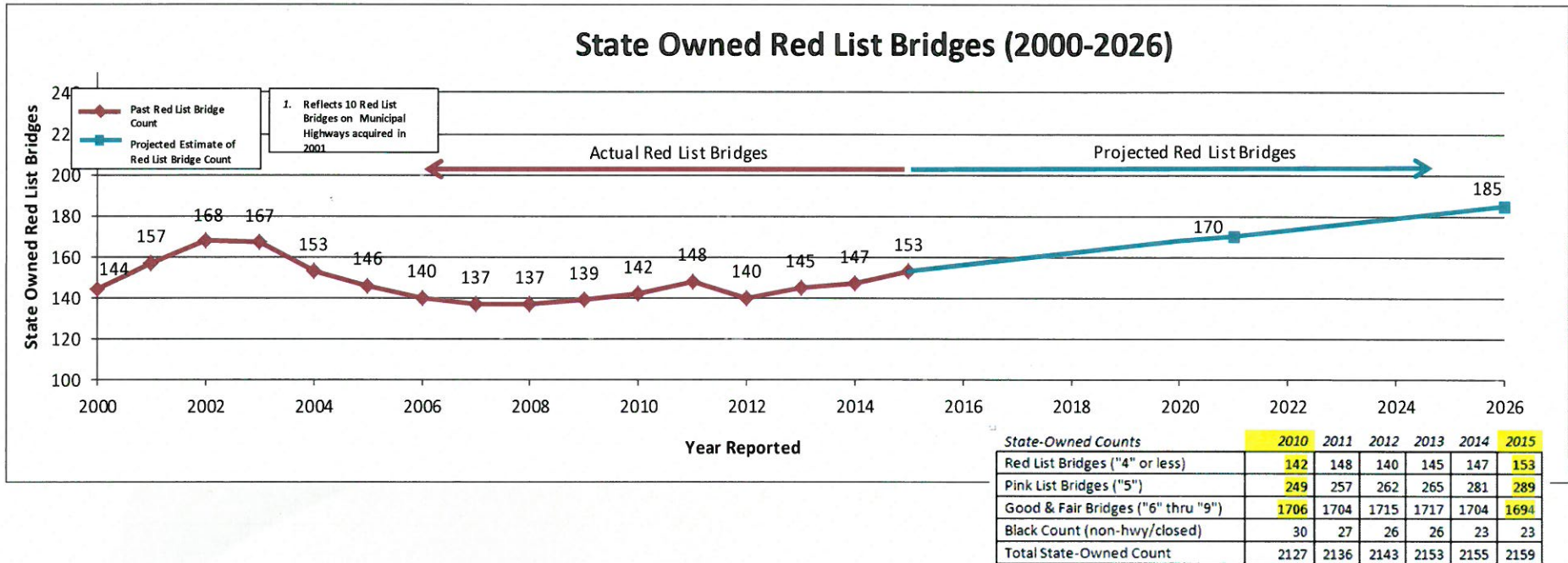


A Look Ahead – State Bridge Condition

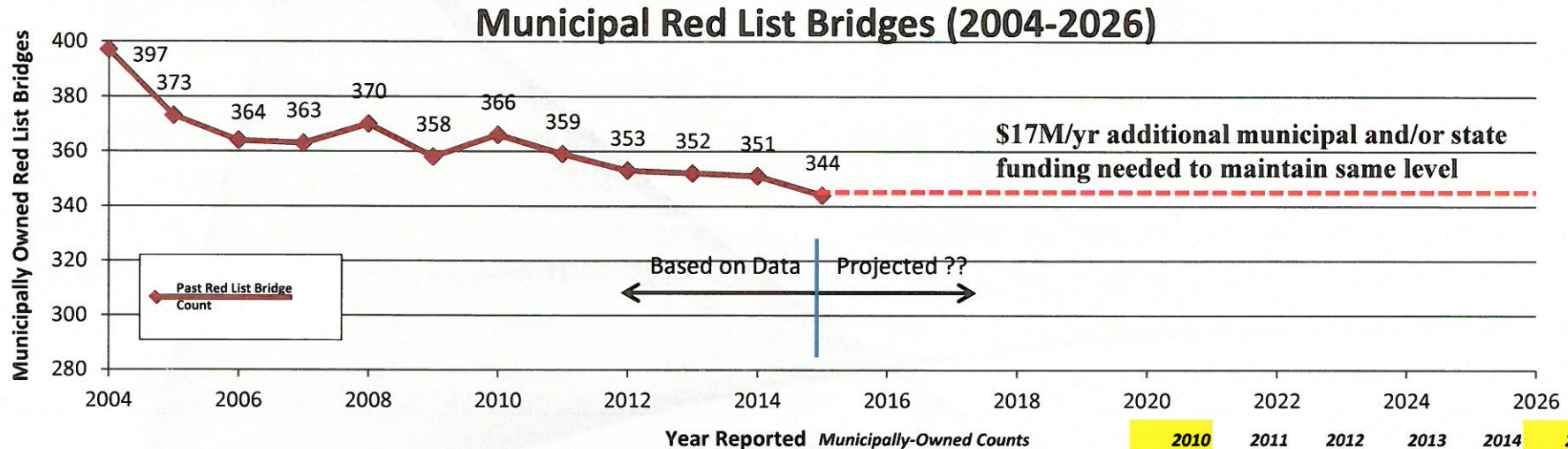


Based on current level of investment in draft TYP

- Number of State Red List Bridges (SRL) - which is representative of bridges in poor condition (rating of 4 or lower) **is expected to increase**
- Higher number of “pink list” bridges (rating of 5) today than 5 years ago

- Current SRL bridge total - **153**
- Bridges added to SRL by 2026 - **276**
 - 23 Bridges added annually over last five years – extrapolated to 2026 projects to 276 bridges
- Bridges expected to be removed from SRL by 2026 - **244**
 - **132** removed by Bridge Maintenance forces
 - **112** removed under TYP

A Look Ahead – Municipal Bridge Condition



Based on current level of investment in draft TYP

- Number of Municipal Red List Bridges (MRL) - which is representative of bridges in poor condition (rating of 4 or lower) is **likely to increase w/out additional funding**
- Higher number of “pink list” bridges (rating of 5) today than 5 years ago
- Removal rate of 28/yr heavily influenced by \$42M influx of funding (2008-2015 thru Bonding, ARRA & SB367)
- \$17M annual municipal and/or additional state funds needed to maintain MRL level

Year Reported	Municipally-Owned Counts	2010	2011	2012	2013	2014	2015
Red Count ("4" or less)		366	359	353	352	351	344
Pink Count ("5")		287	293	276	281	287	296
Better than "5" Count ("6" thru "9")		968	983	1007	1002	999	998
Black Count (non-hwy/closed)		47	45	49	50	51	49
Total Municipally-Owned Count		1668	1680	1685	1685	1688	1687

- Current MRL bridge total - **344**
- Bridges added to MRL by 2026 - **276**
 - 23 Bridges added annually over last five years – extrapolated to 2026 projects to 276 bridges
- Bridges expected to be removed from MRL by 2026 - **???** (Dependent on additional municipal funding)
 - **90** removed under TYP
 - **??** removed by Municipalities



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

The Honorable Neal M. Kurk, Chairman
Fiscal Committee of the General Court
State House
Concord, New Hampshire 03301

September 15, 2016

RE: Department of Transportation Bridge Maintenance Performance Audit Report

Chairman Kurk and Honorable Committee Members:

Transportation Asset Management (TAM) is a data driven approach to managing assets. In 2012 the Moving ahead for Progress in the 21st Century (MAP21) legislation was signed into law. Within that legislation were requirements for state DOTs to prepare a Transportation Asset Management Plan (TAMP) for National Highway System (NHS) bridge and pavement assets. Since 2012 the Federal Highway Administration (FHWA) has been working on the rules pertaining to TAMPs, this process has been delayed several times and at this point final rules have still not been issued.

Throughout LBA's audit of bridge maintenance they evaluated NHDOT's maturity with respect to TAM, comparing the Department's current processes to the best practice level of proficiency. While many states have already adopted aspects of TAM, no state has achieved the best practice level of proficiency. In their report LBA has identified a number of areas for improvement, a lack of comprehensive management systems, referenced incomplete or evolving documents, and stated that potential improvements have not been realized. It was inevitable that they would reach these conclusions if they are comparing NHDOT to an industry standard that has yet to be realized by any DOT.

The Department agrees with many of the recommendations resulting from this audit and many of the gaps are items the Department had already identified and was taking steps to address. Fully deploying TAM is a multi-year effort and will require dedicated staff and resources. To recognize potential efficiencies in the future, it will take increased investment in the near term to deploy the systems and processes that are required to establish a fully comprehensive asset management program.

FHWA requires the Department to maintain a bridge inventory and to report condition based on bridge inspections performed at a minimum frequency of every two years. The Department has used this data to prioritize our work. The Department has also tracked accomplishments, including the type of repair and the resources expended. What has not been done is modeling of future condition for each structure based on different levels of investment, or how preservation and maintenance is extending the life expectancy of each bridge. While this type of analysis may validate the choices that the Department is making, or identify potential efficiencies that could be realized, with an inventory of over 2,100 bridges, to do this manually for each structure would in itself be inefficient. That is why the Department has been focused on using these strategies for larger high priority bridges and is working to deploy software to support this type of analysis for all bridges.

Due to the absence of final FHWA rules, the Department has chosen to advance TAM related initiatives, but keep some of the guidance documents in draft form. Once the rules are finalized and it is certain our processes will conform to FHWA requirements, final versions will be issued. The \$287,000 expended to develop a draft TAMP has led to several initiatives at the Department associated with expanding our TAM capabilities, and all of this material will be folded into the final document.

This audit also states that the Department did not comply with statute in a number of areas, including the Red List, delegating authority, records management and expending appropriated funds. With respect to the red list, the Department and LBA do not concur on the definition of a bridge. The Department considers any bridge that carries traffic to be a highway bridge. There are 21 structures in our inventory that carry only bicycles and pedestrians or trail traffic, and for this reason LBA does not consider these to be bridges. They also do not believe that closed historic structures should be considered bridges, or that railroad structures over highways, that may impact traffic, should be considered bridges. The Department does not agree with this interpretation of statute. However, we will confer with the Attorney General's Office and will pursue changes in statute to further clarify what structures should be included in the both the red list and in the state inventory.

The Department continually reviews its organizational structure, delegation of authority and required documentation to memorialize decision making. While it is recognized that improvements could be made in this area, the Department does not believe that it has failed to comply with statute. The Department uses supplemental job descriptions and power of attorney to delegate authority. To increase transparency and ensure consistency, the Department commits to adopting many of the recommendations outlined in the LBA report. This effort may also increase efficiency as processes will be standardized and more repeatable.

The Department has been cited for performing non-bridge work, specifically building related work using bridge maintenance forces. The Department does not agree that NHDOT lacked the statutory authority to do this work. The Department owns over 500 buildings and only three are managed by the Bureau of General Services within the Department of Administrative Services. For this reason the Department has repeatedly requested and received funding in class 47 (own forces – maintenance building and grounds), to purchase materials for building repair. Depending on the nature of the work, staff with the appropriate skills is then assigned the task. Often it is Bridge Maintenance that has those skill sets. During the audit period \$338,926 was expended by Bureau of Bridge Maintenance on non-bridge work. This represents 2.2% of their resources and most of this work was performed during winter months when the DOT attempts to minimize work on the roadway. The Department does not concur that this was an inefficient practice or a misuse of funds.

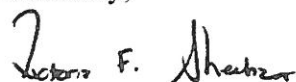
Lastly, federal dollars previously could not be used for preservation, but now that FHWA supports investment in preservation as well as rehabilitation and replacement, the Department will work to develop a balanced program to meet the preservation aspects of the program as well as address the backlog of red list bridges.

Addressing the backlog of investment due to past practices, while implementing asset management and preservation strategies for new structures, will take increased investment. When funding is limited the Department will continue to advocate for both types of investment, but it must be recognized that maintaining public safety and mobility is paramount. TAM data will certainly help the Department advocate for funding and will also be used to estimate the cost-avoidance associated with certain investment strategies. It should be recognized however, that it is unlikely that NHDOT will receive adequate resources to fully implement all of the recommendations that are anticipated to come from TAM processes.

While the Department does not concur with certain statements made within the audit report, the majority of the recommendations are in line with improvements the Department intends to implement. The budget process is providing NHDOT with an opportunity to advocate for funding to successfully implement TAM, as well as the ability to address other recommendations contained within this report.

The Department is committed to increasing its accountability, efficiency and transparency, and NHDOT fully supports TAM, as well as a preservation first approach to managing the State's bridge inventory. During the 2017-2026 Ten-Year Plan development, NHDOT advocated for the need to invest in preservation to prevent bridges becoming deficient, as well as the need to address the backlog of red-list structures. As data analysis capabilities are enhanced, the Department will continue to present this information to the legislature so that the needs are clearly identified, projects can be prioritized appropriately and efficient investment choices made.

Sincerely,

A handwritten signature in black ink that reads "Victoria F. Sheehan". The signature is written in a cursive style with a large initial "V".

Victoria F. Sheehan
Commissioner

NH Department of Environmental Services

Water
Division

Land Resources
Management

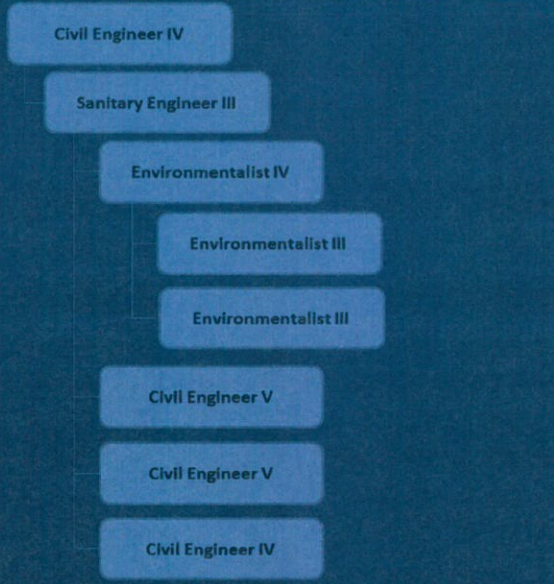
Alteration of
Terrain

Shoreland

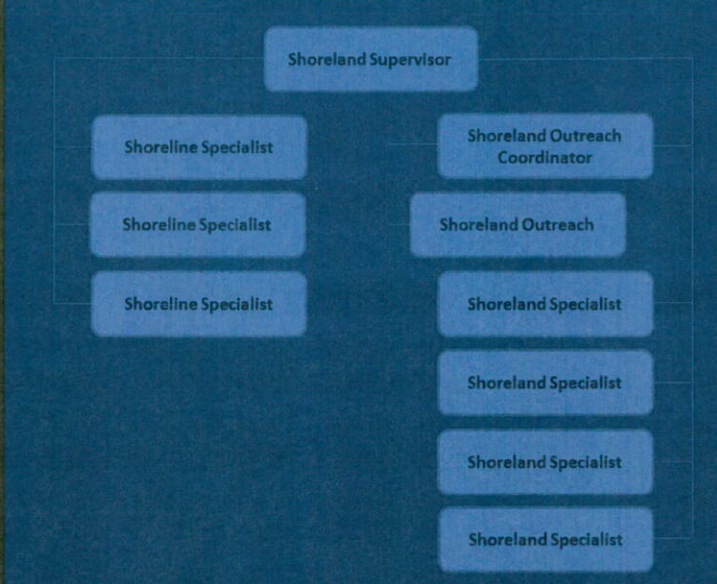
Subsurface
Systems

Wetlands

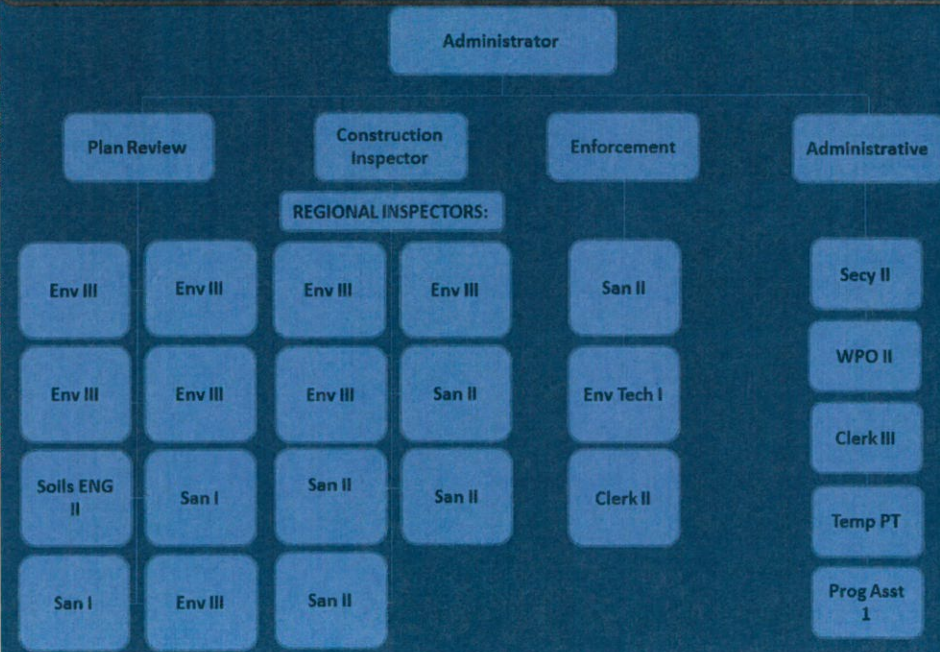
Alteration of Terrain Bureau



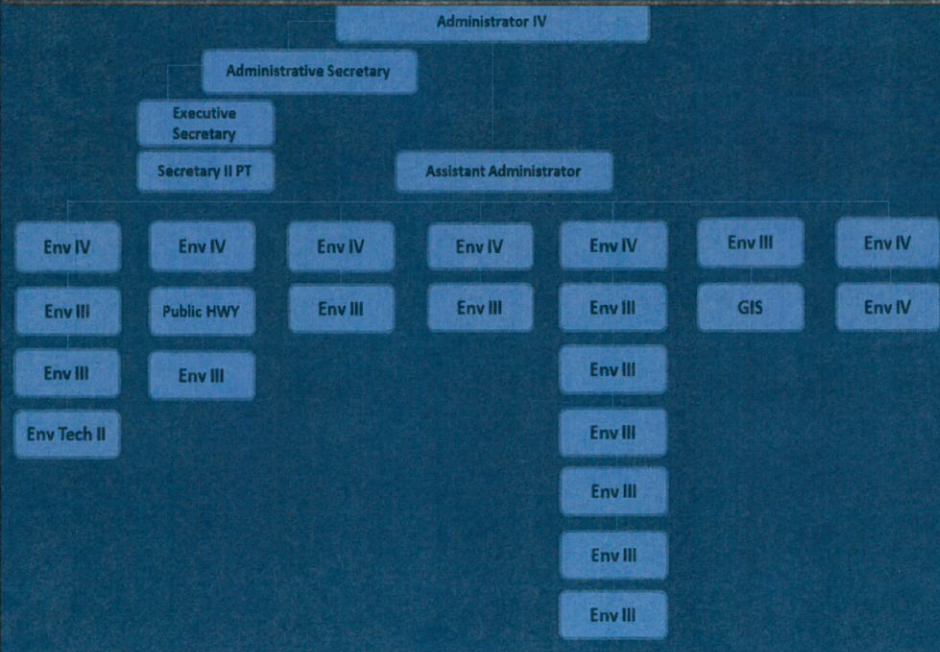
Shoreland Program



Subsurface Systems Bureau



Wetlands Bureau



Land Resources Management

LRM Administrator

**Regional
Operations**

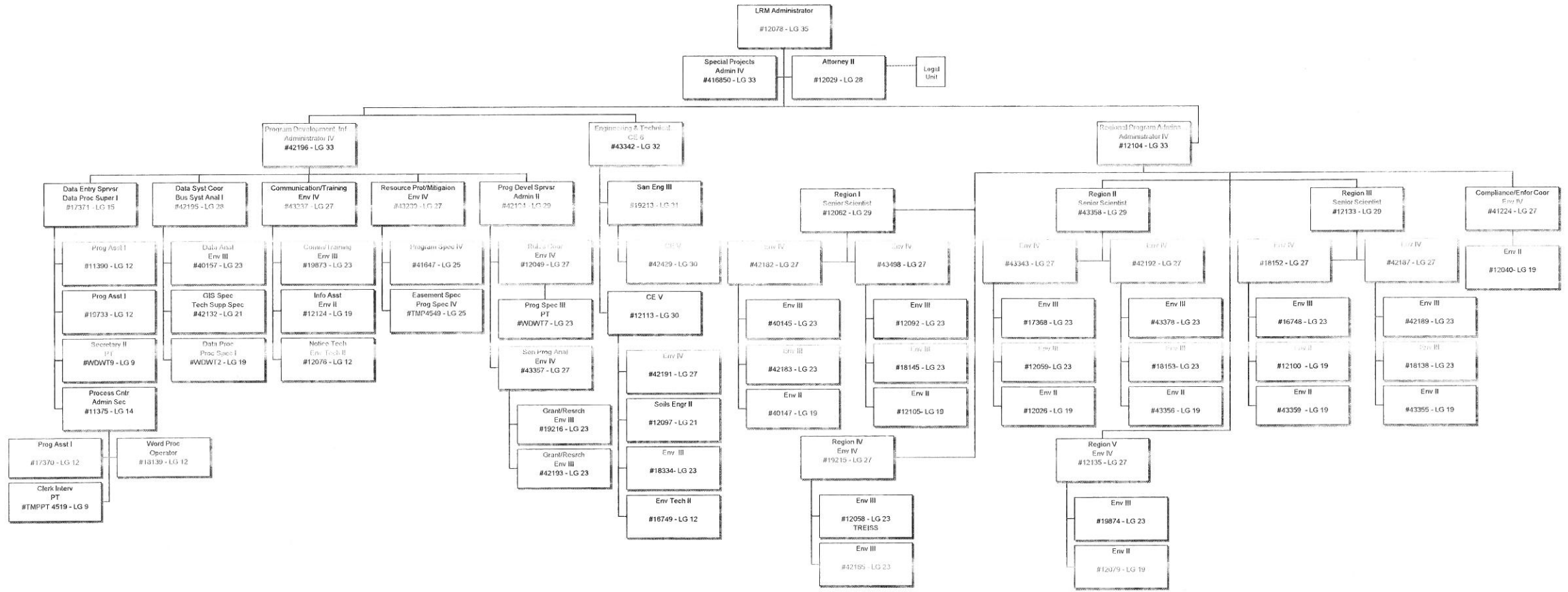
Engineering
and Technical
Services

Program
Development,
Information
and Data
Systems

Benefits of a Regional Approach:



LRM REORGANIZATION



LRM REORGANIZATION

Handout FIS 16-150 9/16/16

