ATTACHMENT 2

ROCKINGHAM PLANNING COMMISSION

Attachment #MPO-2

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Memorandum

DATE: April 2, 2015

TO: MPO Policy Committee

FROM: David Walker

RE: Project Selection

The project solicitation process has been completed and a number of new needs were identified and submitted by Portsmouth, Seabrook, and Stratham. Many other communities responded that they continue to see the projects currently listed in the Long Range Plan and the Ten Year Plan as priorities. All in all, the starting point for this prioritization exercise for the Ten Year Plan included 115 projects. This does not include any projects that are currently in the Ten Year Plan.

It was determined that the best approach to prioritizing projects for the Ten Year Plan was to examine projects first for eligibility and feasibility and then follow that by scoring those eligible and feasible projects against a set of selection criteria. This methodology was developed by a working group comprised of staff from NHDOT, FHWA, and all of the New Hampshire Regional Planning Commissions and the same agencies participated in establishing the weighting of the selection criteria based on a pairwise comparison process.

Step 1: Consider the eligibility of the project for federal funding and the feasibility of the proposal. This involved examining project proposals from multiple perspectives:

- Is there a clear need for project in the next ten years?
- Is the proposed approach reasonable in addressing the transportation issue given existing resources?
- Is the project is likely to receive necessary resource agency permits?
- Is there indication of local support and/or priority for the project?
- Is the project eligible for Federal funding but isn't
    - Transportation Alternatives
    - Congestion Mitigation Air Quality
    - Highway Safety Improvement Program
    - Bridge/Pavement maintenance and preservation programs.
- Where does the project fit as a priority within NHDOT Pavement and Bridge Strategies? These strategies are defined in ***Figure 1*** attached to the end of this memo.

Examining the eligibility and feasibility of projects reduced the number of projects to be ranked from 117 to 37. 46 projects were deemed infeasible and these are listed, along with the reasons as to why the

project wasn't brought forward, in ***Figure 2*** at the end of this memo. Three projects on this list (US 1 capacity improvements in Hampton Falls, Ocean Boulevard Reconstruction in Hampton and the NH1A bridge replacement in Hampton/Seabrook) are included on this list as they await the outcome of feasibility and scoping studies. Another 32 projects were deemed feasible but are eligible and most likely funded under programs that establish priorities under separate processes such as the Transportation Alternatives Program (TAP) or the highway and bridge maintenance and preservation programs. These projects are listed in ***Figure 3*** at the end of this memo in alphabetical order by community.

Step 2: Apply the project selection criteria to those projects that meet eligibility and feasibility standards. The project selection criteria are listed below and include the value of each of the criteria to the overall score. These criteria were defined and applied as follows:

- **Congestion (12%):** The extent to which the project is intended to reduce traveler delay. Estimated based on scope of project, location, and current levels of congestion.
- **Freight Mobility (4.5%):** The degree to which the project impacts the movement of goods. Estimated based on perceived utility as a freight corridor.
- **Alternative Modes (9.2%):** The extent to which the project impacts accommodations for alternative modes of travel. Does the project improve access to goods and services for people without a car.
- **Traffic Volume (4.2%):** The highest volume project location receive the highest score and the lowest volume project location receives the lowest score.
- **Facility Importance (10.5%):** Based on Functional classification. Higher classes of roadways receive higher scores. This reflects the "Tiered" approach desired by NHDOT.
- **Safety measures (13.2%):** To what degree is the project oriented towards making the roadways safer. Is the project purpose primarily safety or is it something else.
- **Safety Performance (11.8%):** Relative crash frequency at the location based on the last 5 years of data (2009-2013). Crash severity is also considered.
- **State of Repair (19.9%):** Roads and Bridges are listed separately but it is a single criterion. The physical condition of the road or bridge. Roadways in better condition will score higher and bridges in the worst condition will score higher. Currently this is based on the same information from 2013 but will be updated when the new data is received from NHDOT
- **Support(14.7%):** The degree to which the project supports the vision, goals, and objectives of the region. This is based on the both the Long Range Transportation Plan as well as the Regional Master Plan.

These were applied to 37 projects producing the ranking that is shown in ***Figure 4***. This figure shows the project details as well as how the project scored in each criterion and is listed in score/rank from highest to lowest. This listing is slightly different than what was presented to the TAC at the meeting on the 26th based on that committee's input which suggested removing the NH 101/US 1 Interchange rebuild project to the unranked list as it is premature to consider this project a priority (***Figure 2***)

Step 3: Apply budget target. DOT has provided the MPO with a budgetary target for programming projects. While the MPO is not guaranteed this funding, it provides guidance as to the "fair share" of funding available for transportation improvements that we might expect to see in the region. That budget target is estimated at ***$5,710,000*** for the last two years of the Ten Year Plan and how it is calculated is shown in ***Figure 5***. This target is considerably smaller than the value used in 2013 due to the fact that it only covers two years (instead of all ten), it does not include many of the project types that were included previously, and anticipated overall funding is smaller.

Figure 5: Budget Allocation

Expected Annual Federal Funding	$ 150,000,000
Debt Service (I-93 and others)	-$ 17,000,000
Preservation and Maintenance	-$ 75,000,000
Mandated Programs	-$ 28,000,000
PE and ROW	-$ 11,000,000
Available for RPCs to program Annually	$ 20,000,000
Total for RPCs to program in Ten Year Plan	$ 40,000,000
RPC Share of available funding (14.3%)	**$ 5,710,000**

Based on the assumed level of funding in ***Figure 5***, the top 6 projects fit easily within the targeted budget amount. The projects ranked 7 and 8 are physically adjacent to each other and have an identical score. Together they push the total to over $6.5 million but likely should be considered a single project for construction purposes. This listing is slightly different than what the TAC recommended based on the correction of some minor scoring errors. These changes did not alter the recommendation of the TAC within the budget target, but did alter the order of some projects further down the list in a few places.

At the TAC meeting, the committee examined and discussed the ranked list of projects that had been prepared by staff and is attached to this memorandum as ***Figure 4***. From that discussion it was decided that it would be premature to recommend the top scoring project (NH 101/US 1 Interchange in Hampton – now listed in Figure 2) for the Ten Year Plan. While being a recognized need, support for bringing the project forward at this time is not there and the project is much costlier than the current budget target allows for. Based on that, the recommendation of the TAC was that the next highest scoring projects should be put forward as the recommended additions to the 10 Year Plan, staying within the budget target. That being said, staff recommends that the entire prioritized list be submitted to NHDOT with clear demarcation as to which fit within the budget recommendation. In addition, the list of projects in Figure 3 should be submitted to the state as well.

Recommended Action: Submit the attached prioritized list (Figure 4) to NHDOT to be considered as the recommended projects from the Rockingham Planning Commission for the Ten Year Plan. Submit the projects listed in Figure 3 as proposals from the region that are eligible for other funding sources outside of the Ten Year Plan process.

Figure 2: Projects not Considered for the Ten Year Plan

Project #	CityTown	Roads	Scope of Work	Notes	Total Cost
6197005	Hampton	NH 101/ US 1	NH 101 interchange reconfiguration and construction of intermodal facility.	Premature to bring this project forward for construction at this time.	$ 11,350,000
6379021	Portsmouth	US Route 1 Bypass	Functional and operational Improvements to the US 1 Bypass traffic circle. Assumes at grade circle/roundabout or intersection	Fundamental disagreement between DOT and Portsmouth regarding design	$ 5,031,250
6197003	Hampton	NH 1A	Full bridge replacement. In the short term, a recommendation had been made by the RPC that the Town, MPO and NHDOT collaborate on a feasibility study and financial plan for carrying out a full bridge replacement. Such study should include a financial plan, cost-benefit analysis and required time frame for replacement based on the life added to the bridge from the current rehabilitation.	Awaiting outcome of scoping and cost study currently in Ten Year Plan	$ 30,000,000
6379006	Portsmouth	US Route 1 Bypass	reconstruct the US 1 Bypass to current standards between the split from Lafayette Road to just south of the traffic circle.	Not likely to be funded under current DOT Pavement Strategy	$ 9,867,000
6379020	Portsmouth	US Route 1 Bypass	Reconstruct the Northern segment of the US 1 Bypass between the traffic circle and the Sarah Long Bridge to current standards	Not likely to be funded under current DOT Pavement Strategy	$ 7,590,000
6345001	North Hampton	US 1	Widen US 1 from Hampton town line to Atlantic Avenue (NH 111) to five lanes. Add fourth leg to Home Depot intersection and discontinue Fern road. From US 1 Corridor Study.	No indication of community support. No immediate need for capacity expansion	$ 9,545,000
6409020	Seabrook	NH 107	A feasibility study is underway that will help to identify the necessary roadway improvements on NH 107 between I-95 and the intersection with NH 150 in Kensington. This may include roadway widening as well as intersection improvements	No clear need for widening in this area	$ 10,350,000
6147005	Epping	NH 125	Signalize the southern intersection of NH 125 with North River Road. Realign North River Road to eliminate skewed angle approaches to NH 125	Not Needed at this time	$ 600,000
6345007	North Hampton	US 1	Realign the northern intersection of US 1 and North Road to the north, widen to 5 lanes at the intersection and install a traffic signal. From US 1 Corridor Study.	Scope of project is large with minimal need/benefit	$ 3,375,000
6199001	Hampton Falls	US 1	Route 1 - Realign and add traffic signal at NH 84. Remove set of traffic signals at NH 88 EB and improve roadway for bi-directional travel on NH 88 adjacent to intersection. Add streetscape/ landscape improvements. From US 1 Corridor Study.	Awaiting outcome of scoping and cost study currently in Ten Year Plan	$ 250,000
6341003	Newton	NH 108	Shoulder Bike Lanes On NH 108		$ 1,495,000
6345006	North Hampton	US 1	Realign the southern intersection of US 1 and North Road to the south, widen to 5 lanes at the intersection and install a traffic signal. From US 1 Corridor Study.	Scope of project is large with minimal need/benefit	$ 2,645,000
6153006	Exeter	Main St	Pedestrian improvements linking Amtrak station and downtown.	No Indication of current community interest. No Scope or cost data.	$ -
6345004	North Hampton	US 1	Connect Hobbs Road with Elm Road and discontinue north end of Elm Road. Provide traffic signal connection from mid-point of Elm road to US 1. From US 1 Corridor Study.	Scope of project is large with minimal need/benefit	$ 3,450,000

Figure 2: Projects not Considered for the Ten Year Plan

Project #	CityTown	Roads	Scope of Work	Notes	Total Cost
6001008	North Hampton Greenland	NH 151	Shoulder improvements (safety and bicycle improvement) on NH 151 from NH 111 to NH 33 .	TA Program. No indicated community support	$ 1,817,000
6153004	Exeter	NH 111	Shoulder bike route on NH 111 between Washington Street and Pickpocket Road [future TE]	Project partially funded via TA grant. Scope & Cost need to be revisited	$ 876,000
6197004	Hampton	NH 27	Shoulder bicycle lanes on NH 27 from Exeter town line to US 1. Complete the Exeter-Hampton-North Hampton bicycle route loop, and work with NH DOT on developing and installing bike route markers.	No Indication of community support.	$ 1,500,000
6001012	Region	Multiple	Region-to-TMC Communications Backbone: Implement a robust communications backbone between the State's TMC in Concord and the seacoast region. From Regional ITS Architecture	No indication of current or expected issues with communications backbone	$ 3,450,000
6345008	North Hampton	US 1	Provide full shoulders for three lane section of US 1 between North Road and new traffic signal in the vicinity of Lafayette Terrace. From US 1 Corridor Study.	No immediate need/benefit from project	$ 600,000
6147006	Epping	NH 125	Signalize intersection of NH 125 with Lee Hill Road	Not needed at this time	$ 300,000
6153005	Exeter	NH 88	Widen shoulders on NH 88.	No Indication of community support. Scope and cost need to be updated.	$ 2,275,850
6001001	Atkinson-Hampstead	NH 111	Reconstruct NH 111 from Central Street in Hampstead to the southernmost Atkinson / Hampstead town line (3.2 Miles)	Not likely to be funded under current DOT Pavement Strategy	$ 11,040,000
6345003	North Hampton	US 1	Provide full shoulder to three lane section from Glendale Road to Hobbs road. From US 1 Corridor Study.	No immediate need/benefit from project	$ 600,000
6153007	Exeter	Washinton St	Traffic calming - install speed tables and other devices.	Project is on a local street. May not be eligible for Federal Funds.	$ -
6197001	Hampton	Ocean Blvd	Reconstruction of Ocean Boulevard from Haverhill Avenue in the south to Ashworth Avenue in the north to include a new road (back to the original level), new sidewalks and curbing along the west side of the roadway, new / enhanced crosswalks and new drainage system. Through a public / private partnership agreement Unitil has offered to work with the Town on the cost of new electrical poles and underground wiring.	Awaiting outcome of scoping and cost study currently in Ten Year Plan	$ 11,500,000
6243001	Kingston	NH 125	Reconstruct segment between Roadstone Drive and Hunt Road/ Newton Junction Road and Old Coach Road and Stoney Brook Road	Not clear that capacity improvements are needed at this location	$ 11,270,000
6147002	Epping	NH 125	Signalize Lagoon Road Intersection with NH 125	Not needed at this time	$ 300,000
6345005	North Hampton	US 1	Provide full shoulder for 3 lane section from Elm Road to south of North Road. From US 1 Corridor Study.	No immediate need/benefit from project	$ 480,000
6199002	Hampton Falls	US 1	Improve Route 1 from Seabrook Town line to Kensington Road (NH 84). Includes provision of full shoulder, access management improvements. From US 1 Corridor Study.	No immediate need/benefit from project	$ 1,200,000
6345009	North Hampton	US 1	Improve shoulders from the New North Road access point to the Rye town line. New signal and widen to five lanes in the vicinity of Lafayette Terrace connecting residential and commercial properties on each side of US 1. From US 1 Corridor Study.	No immediate need/benefit from project	$ 2,645,000

Figure 2: Projects not Considered for the Ten Year Plan

Project #	CityTown	Roads	Scope of Work	Notes	Total Cost
6327001	Newfields	New Rd	Replace/Rehab structurally deficient bridge on New Road over BMRR 130/083. Source: NHDOT 2007 Red List Bridge Summary	No Cost Estimate	$ -
6147007	Epping	NH 125	Widen NH 125 from NH 87 to Lee Hill Road	Traffic volumes indicate no widening needed	$ 3,829,500
6197009	Hampton	High Street	Repaving / reconstructing urban compact streets. This project would rebuild High Street (NH 27) within the urban compact area. Work would include reconstruction of the roadway, drainage, sidewalks, replacing traffic signals and improved street lighting.	High cost reconstruction not liekly to be funded by NHDOT	$ 7,935,000
6197010	Hampton	Winnacunnet Rd	Repaving / reconstructing urban compact streets. This project would rebuild all of the Winnacunnet Road within the urban compact area. Work would include reconstruction of the roadway, drainage, sidewalks, replacing traffic signals and improved street lighting.	High cost reconstruction not liekly to be funded by NHDOT	$ 8,280,000
6197011	Hampton	Church Stret	Repaving / reconstructing urban compact streets. This project would rebuild all of Church Street within the urban compact area. Work would include reconstruction of the roadway, drainage, sidewalks, replacing traffic signals and improved street lighting.	High cost reconstruction not liekly to be funded by NHDOT	$ 1,725,000
6197006	Hampton	NH 27	Repaving / reconstructing urban compact streets. This project would rebuild all of Exeter Road (NH 27) within the urban compact area. Work would include reconstruction of the roadway, drainage, sidewalks, replacing traffic signals and improved street lighting.	High cost reconstruction not liekly to be funded by NHDOT	$ 12,420,000
6153008	Exeter	Portsmouth Ave	High Street /Portsmouth Avenue Intersection Capacity Improvements. Source: 1999-2020 LRP	No clear concept of need for project and no indicated support from community	$ 4,735,700
6197007	Hampton	New	Construct a new limited access road connecting from NH 101 north to NH 151 following the B & M railroad alignment. Road will become a new US 1 alignment in that area and carry regional through traffic. The Route 1 Corridor Study states that access to the old Route 1 and the downtown area would be provided at signalized intersections at each end of the new roadway. It goes on to state that access would likely be provided at one to two additional locations along the roadway, however, fewer connections will improve traffic flow and ensure that the roadway is primarily utilized by through traffic only.	No clear indication of support from community. No clearly defined scope, purpose or need.	$ 6,900,000
6379009	Portsmouth	New	Create new road along North Mill Pond between Bartlett Street and Maplewood Ave	Local Road limits eligibility for Federal Funds	$ 3,875,000
6187001	Greenland	NH 33	Address Capacity Issues on NH 33 between Bayside Road and NH 151	No scope or cost estimate.	$ -
6001002	Exeter-Newfields	NH 85	Widen shoulders on NH 85 from Main Street in Exeter to NH 87 in Newfields	No indicated community support. Cost estimate seems very low	$ 1,200,000
6001004	Hampstead - Plaistow	NH 121A	Capacity Improvements And Shoulders To NH 121A Between NH 111 And NH 125	No Indicated community support	$ -
6001009	Plaistow-Atkinson-Hampstead	NH 121	Safety Improvements Including Shoulders - State Line To Hampstead Town Line	No indicated community support.	$ 7,434,750

Figure 2: Projects not Considered for the Ten Year Plan

Project #	CityTown	Roads	Scope of Work	Notes	Total Cost
6001005	Hampstead - Sandown	NH 121A	Capacity Improvements And Shoulders For NH 121A Between NH 111 And Sandown/Chester Town Line	No Indicated community support	$ -
6001003	Exeter-East Kingston	NH 108	Shoulder bike route on NH 108 from Exeter town center to Newton town line.	No indicated community support. Cost estimate seems very low	$ 3,335,000
6001013	Region	Multiple	Regional Portable VMS: Procure two portable VMS for the region to use to assist in construction traffic mitigation.	No indication that additional VMS are needed	$ 84,000

Figure 3: Projects Most Likely to be funded under other Programs

Program	Project #	CityTown	Roads	Scope of Work	Notes	Total Cost
SAH	6021001	Atkinson	Hilldale Ave	Upgrade Hilldale Avenue in Atkinson	Local Road limits eligibility for Federal Funds	$ 403,200
BET	6055002	Brentwood	NH 111A	Reconfigure the intersection of NH 111A and Pickpocket Road from a "Y" to a "T" alignment	While eligible for the Ten Year Plan, using SAH or Betterment would be more likely to happen and much sooner	$ 96,000
BET	6055001	Brentwood	North Road	Realign the intersection of Prescott Road and North road from a "Y" alignment to a "T" alignment	While eligible for the Ten Year Plan, using SAH or Betterment would be more likely to happen and much sooner	$ 96,000
TA	6113001	Danville	NH 111A	NH 111A sidewalks connecting municipal buildings and public areas plus a section of bicycle lane on both sides of the road (future TE)	Bicycle and Pedestrian project	$ 1,840,000
BET	6135001	East Kingston	NH 107	Improve Sight distance at intersection of NH 107 & Willow Road. Source: 2001-2003 TIP Proposal	Technically eligible, unclear as to need	$ 76,800
HSIP	6147004	Epping	NH 125	Signalize intersection of NH 125 & NH 87	50% of crashes have resulted in severe injuries	$ 300,000
SAB	6147008	Epping	Blake Rd	Bridge Replacement, Blake Road over Lamprey River [059/054]	Bridge Program	$ 660,000
SAB	6147009	Epping	Main St	Repair/Replacement of Main Street bridge over Lamprey River [109/055]	Bridge Program	$ 744,000
SAB	6153002	Exeter	Park St	Park Street over BMRR 088/076. Source: NHDOT 2004 Bridge Aid Status Report. 80% Federal, 10% State, 10% Local	Bridge Program	$ 2,990,000
SAB	6167002	Fremont	Scribner Rd	Scribner Road over Exeter River - Structurally deficient bridge 106/076. Source: NHDOT 2002 Red List Bridge Summary	Bridge Program	$ -
SAH	6331001	Newington	Pease Blvd/ NH Ave/ Arboretum Dr	The Arboretum Drive and Pease Boulevard Northbound approaches will expand from a single lane to a left turn lane and a shared through/right lane. The New Hampshire Avenue approach will be widened to accommodate a left turn lane, a through lane, and a right turn lane. A signal will be installed once expected warrants are met.	Local Road limits eligibility for Federal Funds	$ 1,100,000
SAB	6341001	Newton	Pond Rd	Pond Road Over B&M RR - Structurally Deficient 064/107	Bridge Program	$ 2,070,000
TA	6379025	Portsmouth	US Route 1	Create new side path paralleling Route 1 and transit amenities within the ROW.	Bicycle and Pedestrian project	$ 4,240,000
TA	6379026	Portsmouth	Islington St	Construction of new sidewalk on one side of the street.	Pedestrian Project	$ 250,000
SAB	6379012	Portsmouth	Coakley Rd	Upgrade / replace aging bridge.	Bridge Program	$ 198,000
TA	6379024	Portsmouth	Spinney Rd	Add new sidewalk along one side of Spinney Rd and improve intersection at Spinney / Islington.	Pedestrian Project	$ 350,000
SAB	6379015	Portsmouth	Cate Street	Replace bridge	Bridge Program	$ 480,000

Figure 3: Projects Most Likely to be funded under other Programs

Program	Project #	CityTown	Roads	Scope of Work	Notes	Total Cost
SAB	6379013	Portsmouth	Bartlett St	Bridge upgrade / replacement over Hodgson Brook	Bridge Program	$ 342,000
SAH	6379002	Portsmouth	Grafton Drive	Grafton Drive will be widened to provide a five lane cross section, two through turn lanes in each direction and a center left turn lane. In addition left-through and right-turn lanes will be provided on the Portsmouth Transportation Center approach. Finally, a signal will be added to the intersection.	Local Road limits eligibility for Federal Funds	$ 1,500,000
SAB	6379018	Portsmouth	Pierce Island Rd	Replace Pierce Island Bridge over Little Harbor	Bridge Program	$ 2,875,000
SAH	6379003	Portsmouth	Corporate Dr/ Grafton Drive	Installation of a fully actuated traffic control signal at the intersection of Corporate Drive and Grafton Drive on the Pease International Tradeport in Portsmouth.	Local Road limits eligibility for Federal Funds	$ 1,400,000
SAH	6379030	Portsmouth	Banfield Rd	Upgrades will include culvert replacement, guard rail installation, and traffic calming.	Local Road limits eligibility for Federal Funds	$ 700,000
SAH	6379001	Portsmouth	Durham St/Corporate Drive/NH Ave/International Dr	Installation of a traffic signal and construction of left turn lanes on the approaches to New Hampshire Avenue, Corporate Drive and International Drive.	Local Road limits eligibility for Federal Funds	$ 1,100,000
SAB	6399003	Salem	Haverhill Rd.	Bridge Replacement. Haverhill Road over Spicket River [097/181]. Municipally Managed Project.	Bridge Program	$ 921,600
SAB	6399005	Salem	Lawrence Rd	Bridge Rehabilitation on Lawrence Road over Spicket River [113/070]	Bridge Program	$ 240,000
SAB	6399002	Salem	Emerson Way	Bridge Replacement. Emerson Way over Widow Harris Brook [114/108]. Municipally managed project	Bridge Program	$ 720,000
SAB	6405001	Sandown	Phillips Rd	Bridge Replacement on Phillips Road over Exeter River [093/109]	Bridge Program	$ 480,000
SAB	6405002	Sandown	Fremont Rd	Bridge rehab/replacement on Fremont Road over Exeter River - 098/117	Bridge Program	$ 420,000
TA	6409006	Seabrook	NH 1A	Curbed sidewalk linking Seabrook Beach community with Hampton Beach [future TE].	Pedestrian Project	$ 324,000
SAB	6417002	South Hampton	Hilldale Ave	Bridge Replacement on Hilldale Avenue over Powwow River [069/066]	Bridge Program	$ 720,000
SAB	6417001	South Hampton	Whitehall Rd	Bridge Replacement on Whitehall Road over Powwow River [099/062]	Bridge Program	$ 306,000
TA	6431002	Stratham	Squamscott Rd	Shoulder Bike Lanes On Squamscott Road From NH 108 To NH 33	Bicycle Project	$ 1,200,000

Figure 4: Prioritized Projects for the State Ten Year Plan

Rank	Project #	CityTown	Roads	Scope of Work	Congestion	Freight Mobility	Improves Accessibility	Volume	Facility Importance	Safety Measures	Safety Performance	Service Life & Current Asset Condition	Regional Support	Total	Total Cost
1	6375001	Plaistow	NH 121A	Main Street Traffic Calming/safety Improvements	Minimal Positive Impact	Minimal Positive Impact	Moderate Positive Impact	9300	16 - Minor Arterials (Urban)	Very Significant Focus	High Frequency	Road - Fair Condition	Strongly Supports VGO	**0.736**	$ 900,000
2	6379023	Portsmouth	Maplewood Ave	This project includes planning, design, and construction of Complete Street improvements on Maplewood Ave. This project will include sidewalk widening, addition of bike lanes, crosswalk improvements, travel lane reductions, and other traffic calming measures.	Minimal Positive Impact	Minimal Positive Impact	Moderate Positive Impact	11000	16 - Minor Arterials (Urban)	Major Focus	High Frequency	Road - Fair Condition	Strongly Supports VGO	**0.704**	$ 582,000
3	6147010	Epping	NH 125	From Regional ITS Architecture: Signal coordination and control along congested corridor. Includes remote control of signals, network surveillance and monitoring, and emergency routing capabilities	Moderate Positive Impact	Moderate Positive Impact	Neutral/ No Impact	23000	12 - Other Freeways & Expressways (Urban)	Limited Focus	Very High Frequency	Road - Fair Condition	Strongly Supports VGO	**0.701**	$ 626,400
4	6379007	Portsmouth	Maplewood Ave	Upgrade the railroad crossing on Maplewood Ave between Vaughan and Deer Streets.	Minimal Positive Impact	Minimal Positive Impact	Neutral/ No Impact	10000	16 - Minor Arterials (Urban)	Very Significant Focus	High Frequency	Road - Fair Condition	Strongly Supports VGO	**0.691**	$ 690,000
5	6379014	Portsmouth	Woodbury Ave	Signal coordination and control along congested corridor. Includes remote control of signals, network surveillance and monitoring, and emergency routing capabilities.	Moderate Positive Impact	Minimal Positive Impact	Neutral/ No Impact	17000	16 - Minor Arterials (Urban)	Average Focus	Very High Frequency	Road - Fair Condition	Strongly Supports VGO	**0.688**	$ 920,400
6	6375003	Plaistow	NH 125	From Regional ITS Architecture: Signal coordination and control along congested corridor. Includes remote control of signals, network surveillance and monitoring, and emergency routing capabilities	Moderate Positive Impact	Moderate Positive Impact	Neutral/ No Impact	23000	14 - Other Principal Arterials (Urban)	Limited Focus	Very High Frequency	Road - Fair Condition	Strongly Supports VGO	**0.685**	$ 806,400
7	6409004	Seabrook	US 1	Widen US 1 to 5 lanes between NH 107 and the North Access Road. Install signal at New Zealand Road and make crosslot connection between Rocks Road and the North Access Road. From US 1 Corridor Study.	Strong Positive Impact	Moderate Positive Impact	Neutral/ No Impact	20000	14 - Other Principal Arterials (Urban)	Average Focus	Moderate Frequency	Road - Fair Condition	Moderately Supports VGO	**0.614**	$ 1,552,500
8	6409005	Seabrook	US 1	US 1 - Transition from 5 lanes at the North Access Road to a 3 lane cross-section at the Hampton Falls town line. From US 1 Corridor Study.	Strong Positive Impact	Moderate Positive Impact	Neutral/ No Impact	20000	14 - Other Principal Arterials (Urban)	Average Focus	Moderate Frequency	Road - Fair Condition	Moderately Supports VGO	**0.614**	$ 480,000
9	6431001	Stratham	Rte. 108 and 33 / Portmouth Ave and Winnicutt Road	A comprehensive reconfiguration of the Rte. 108 / Rte. 33 Stratham Circle through the Town Center District. Reconfiguration of 4 intersections for traffic and pedestrian access and safety improvements including a roundabout, lane reconfigurations, signalization, sidewalks, bicycle lanes, crosswalks, Bus shelters, traffic calming measures, and signage improvements.	Minimal Positive Impact	Minimal Positive Impact	Minimal Positive Impact	17000	16 - Minor Arterials (Urban)	Major Focus	High Frequency	Road - Fair Condition	Moderately Supports VGO	**0.611**	$ 2,959,300
10	6379019	Portsmouth	Hampton Branch Rail Trail	The Hampton Branch rail line runs south from Barberry Lane to the Greenland town line. This corridor has been designated as the long-term, off-road route of the NH Seacoast Greenway (East Coast Greenway). Pan Am Rail has initiated abandonment of the line, which will make it potentially available for conversion to a multi-use trail.	Minimal Positive Impact	Minimal Positive Impact	Moderate Positive Impact	21000	14 - Other Principal Arterials (Urban)	Major Focus	Very High Frequency	Road - New Facility	Strongly Supports VGO	**0.605**	$ 2,125,000
11	6239001	Kensington	NH 107	Realign and upgrade the intersection of NH 150 and NH 107 in Kensington. Possible location for a roundabout. Source: NH 107/150 Intersection Study	Minimal Positive Impact	Minimal Positive Impact	Neutral/ No Impact	9200	7 - Major Collector (Rural)	Major Focus	Moderate Frequency	Road - Fair Condition	Strongly Supports VGO	**0.602**	$ 900,000
12	6409007	Seabrook	East Coast Greenway	Construct multiple use pathway on State owned portion of B&M railroad from Mass state line to Seabrook Station. East Coast Greenway.	Minimal Positive Impact	Minimal Positive Impact	Strong Positive Impact	20000	14 - Other Principal Arterials (Urban)	Major Focus	High Frequency	Road - New Facility	Strongly Supports VGO	**0.598**	$ 918,000
13	6409001	Seabrook	US 1	Reconfigure rotary on US 1 at the MA state line to a four way intersection as per the US 1 Corridor Study. Widen US 1 to 5 lanes	Moderate Positive Impact	Minimal Positive Impact	Minimal Positive Impact	25000	14 - Other Principal Arterials (Urban)	Average Focus	Moderate Frequency	Road - Fair Condition	Moderately Supports VGO	**0.598**	$ 2,875,000
14	6409002	Seabrook	US 1	Widen US 1 to 5 lanes between Walton Road and Gretchen Road From US 1 Corridor Study.	Moderate Positive Impact	Minimal Positive Impact	Minimal Positive Impact	25000	14 - Other Principal Arterials (Urban)	Average Focus	Moderate Frequency	Road - Fair Condition	Moderately Supports VGO	**0.598**	$ 2,760,000
15	6001018	Seabrook-Hampton	NH 1A	Route 1A Evacuation ITS Improvements: Deployment of Route 1A contra-flow signage, VMS, surveillance, and communications upgrades. From Regional ITS Architecture	Minimal Positive Impact	Minimal Positive Impact	Neutral/ No Impact	8800	16 - Minor Arterials (Urban)	Major Focus	Low Frequency	Road - Fair Condition	Strongly Supports VGO	**0.598**	$ 2,139,000
16	6397001	Rye	US 1	Improve shoulders on US 1 from Breakfast Hill Road to Portsmouth city line	Minimal Positive Impact	Minimal Positive Impact	Minimal Positive Impact	21000	14 - Other Principal Arterials (Urban)	Average Focus	Low Frequency	Road - Very Good or Good Condition	Moderately Supports VGO	**0.586**	$ 1,200,000
17	6375004	Plaistow	NH 121A	Intersection improvements at North Avenue And NH 121A In Plaistow	Minimal Positive Impact	Minimal Positive Impact	Neutral/ No Impact	9100	16 - Minor Arterials (Urban)	Major Focus	High Frequency	Road - Fair Condition	Moderately Supports VGO	**0.583**	$ 1,806,650
18	6379016	Portsmouth	Market Street	Upgrade the railroad crossing on Market Street near the intersection with Russell St. This hazard elimination project, includes upgrades of the rail, the roadway approaches, drainage improvements, and installation of protective devices at the crossing.	Minimal Positive Impact	Minimal Positive Impact	Neutral/ No Impact	18000	16 - Minor Arterials (Urban)	Major Focus	Moderate Frequency	Road - Fair Condition	Moderately Supports VGO	**0.559**	$ 883,200
19	6153001	Exeter	Epping Rd	Implementation Of Access Management Plan Developed By Exeter To Likely Include Row Acquisitions And Driveway Consolidation.	Moderate Positive Impact	Minimal Positive Impact	Neutral/ No Impact	12000	16 - Minor Arterials (Urban)	Average Focus	Moderate Frequency	Road - Fair Condition	Moderately Supports VGO	**0.553**	$ 1,897,500

Figure 4: Prioritized Projects for the State Ten Year Plan

Rank	Project #	CityTown	Roads	Scope of Work	Congestion	Freight Mobility	Improves Accessibility	Volume	Facility Importance	Safety Measures	Safety Performance	Service Life & Current Asset Condition	Regional Support	Total	Total Cost
20	6379027	Portsmouth	Market St and Russell St	A roundabout is currently being considered for this location.	Minimal Positive Impact	Neutral/ No Impact	Minimal Positive Impact	18000	16 - Minor Arterials (Urban)	Major Focus	Low Frequency	Road - Fair Condition	Moderately Supports VGO	**0.541**	$ 875,000
21	6197002	Hampton	US 1/NH 27	Improvements to the US 1 / NH 27 intersection. Realignment of Exeter Road (Route 27) to the south so as to align directly opposite High Street, which would improve the operation of the signalized intersection by allowing Exeter Road and High Street through movements to run under the same signal phase. This will also require construction of a new bridge over the railroad that is wider and aligned slightly to the the south of the current bridge.	Moderate Positive Impact	Minimal Positive Impact	Neutral/ No Impact	24800	14 - Other Principal Arterials (Urban)	Average Focus	Very High Frequency	Road - Poor Condition	Moderately Supports VGO	**0.535**	$ 6,175,000
22	6379028	Portsmouth	Islington St	Preliminary and final design, engineering, and construction for reconstruction of the street that will include subsurface utility work as well as sidewalk improvements, street lighting and street furniture, curbing and bump outs as well as traffic signal improvements and realignment of the Bartlett St / Islington St intersection.	Minimal Positive Impact	Minimal Positive Impact	Moderate Positive Impact	14000	16 - Minor Arterials (Urban)	Average Focus	Very High Frequency	Road - Poor Condition	Moderately Supports VGO	**0.529**	$ 2,000,000
23	6431005	Stratham	NH 33	Full signalization of the Route 33/Portsmouth Avenue and Winnicutt Road intersection.	Minimal Positive Impact	Neutral/ No Impact	Neutral/ No Impact	14000	16 - Minor Arterials (Urban)	Average Focus	Moderate Frequency	Road - Very Good or Good Condition	Minimally Supports VGO	**0.526**	$ 185,000
24	6195001	Hampstead	NH 121	Improve The Intersection Of NH 121/ Derry Rd/ Depot Rd In Hampstead	Minimal Positive Impact	Neutral/ No Impact	Neutral/ No Impact	7700	16 - Minor Arterials (Urban)	Average Focus	Moderate Frequency	Road - Fair Condition	Moderately Supports VGO	**0.509**	$ 300,000
25	6431004	Stratham	NH 108	NH 108/ Frying Pan Lane/ River Rd Signalization And Realignment And Lane Improvements. Source: 2001-2003 TIP Proposal	Negative Impact	Neutral/ No Impact	Neutral/ No Impact	21000	16 - Minor Arterials (Urban)	Average Focus	Moderate Frequency	Road - Very Good or Good Condition	Moderately Supports VGO	**0.506**	$ 873,600
26	6397003	Rye	US 1	Improve Shoulders on US 1 from North Hampton Town line to Breakfast Hill Road. Realign Dow Road to 90 degree approach.	Minimal Positive Impact	Minimal Positive Impact	Minimal Positive Impact	21000	14 - Other Principal Arterials (Urban)	Average Focus	Low Frequency	Road - Fair Condition	Minimally Supports VGO	**0.500**	$ 720,000
27	6199003	Hampton Falls	US 1	Route 1 - Provide full shoulder and access management improvements from Lincoln Avenue to Hampton town line. From US 1 Corridor Study.	Minimal Positive Impact	Minimal Positive Impact	Neutral/ No Impact	20000	16 - Minor Arterials (Urban)	Average Focus	Low Frequency	Road - Fair Condition	Moderately Supports VGO	**0.497**	$ 1,200,000
28	6431003	Stratham	NH 108	NH 108 / Bunker Hill Avenue: Signalization And Turn Lanes And Intersection Realignment. Source: 1999-2020 LRP	Negative Impact	Neutral/ No Impact	Neutral/ No Impact	21000	16 - Minor Arterials (Urban)	Average Focus	Low Frequency	Road - Very Good or Good	Moderately Supports VGO	**0.476**	$ 565,200
29	6001019	Seabrook-Hampton Falls-Hampton	East Coast Greenway	Construct multiple use pathway on State owned portion of B&M railroad from Seabrook Station to Hampton Town center near Post Office. East Coast Greenway.	Minimal Positive Impact	Minimal Positive Impact	Moderate Positive Impact	20000	14 - Other Principal Arterials (Urban)	Major Focus	Moderate Frequency	Road - New Facility	Moderately Supports VGO	**0.472**	$ 4,209,000
30	6397002	Rye	US 1	Widen to five lanes and improve the Washington Road/Breakfast Hill Road intersection with US 1. Reduce vertical rise to the south to improve sight distance.	Moderate Positive Impact	Minimal Positive Impact	Neutral/ No Impact	24000	14 - Other Principal Arterials (Urban)	Average Focus	Low Frequency	Road - Poor Condition	Moderately Supports VGO	**0.446**	$ 2,415,000
31	6001014	Region	NH 125	Route 125 and Interstate 495 Interchange Cross-Border ITS: Deployment of Advanced Traveller Information Services and Communications upgrades to coordinate traffic flow information across the MA-NH border.	Moderate Positive Impact	Minimal Positive Impact	Neutral/ No Impact	23000	14 - Other Principal Arterials (Urban)	Limited Focus	Moderate Frequency	Road - Poor Condition	Moderately Supports VGO	**0.442**	$ 600,000
32	6379031	Portsmouth	Junkins Ave	This is an upgrade to an existing facility to address substandard conditions. It will include improvements to the road bed, drainage, and sidewalk improvements as well as bicycle lanes on at least one side of the road.	Minimal Positive Impact	Neutral/ No Impact	Moderate Positive Impact	3300	17 - Collector (Urban)	Average Focus	Low Frequency	Road - Poor Condition	Moderately Supports VGO	**0.397**	$ 800,000
33	6379005	Portsmouth	Maplewood Ave	Replace Maplewood Avenue culvert over North Mill Pond. Replacement structure will consist of three concrete arches with existing stone reused to construct seawalls.	Neutral/ No Impact	Neutral/ No Impact	Neutral/ No Impact	7200	Bridge - Few Alt Routes	No Focus	Low Frequency	Bridge - Poor Condition	Moderately Supports VGO	**0.396**	$ 1,150,000
34	6379029	Portsmouth	South St	This project will include a new road bed, underdrains and surface drainage, sidewalk reconstruction as well as water, sewer, and gas lines work.	Neutral/ No Impact	Neutral/ No Impact	Neutral/ No Impact	8800	16 - Minor Arterials (Urban)	Limited Focus	Moderate Frequency	Road - Poor Condition	Moderately Supports VGO	**0.347**	$ 250,000
35	6001016	Region	Multiple	Park-and-Ride ITS Improvements: Deploy surveillance, parking sensors, and signage at Park-and-Ride facilities. From Regional ITS Architecture.	Minimal Positive Impact	Neutral/ No Impact	Minimal Positive Impact	NA	14 - Other Principal Arterials (Urban)	Average Focus	No Reported Accidents	Road - New Facility	Moderately Supports VGO	**0.336**	$ 810,000
36	6001015	Region	Multiple	Bridge Security Surveillance and Interagency Video Exchange: Establish a video distribution system to allow authorized municipal and transit organizations to view bridge conditions in real-time.	Minimal Positive Impact	Minimal Positive Impact	Neutral/ No Impact	NA	11 - Interstates (Urban)	No Focus	No Reported Accidents	Bridge - New Facility	Moderately Supports VGO	**0.284**	$ 1,840,000
37	6379010	Portsmouth	I-95	Construct a noise barrier consisting of vertical wood sound walls along an approximately 2,000 foot portion of southbound I-95 where it passes Pannaway Manor.	Neutral/ No Impact	Neutral/ No Impact	Neutral/ No Impact	80000	11 - Interstates (Urban)	No Focus	Low Frequency	Road - New Facility	Minimally Supports VGO	**0.278**	$ 1,210,000

NHDOT Pavement Strategy - Summary

The New Hampshire Department of Transportation (NHDOT) is focused on managing the state's road network as efficiently and effectively as possible. With that goal in mind the Pavement Strategy is based on the following concepts:

1. Highway Priorities (Tiers)
2. Making Sustainable Investments
3. Maintenance Paving

Highway Priorities (Tiers) - Not all roads are equal

While every road is critical to the people and businesses that rely upon it each road also serves a different number of users and provides different levels of connectivity. The Department has categorized the state managed road system into the following priorities (tiers):

- Tier 1 – Interstates, Turnpikes & the divided section of Route 101
- Tier 2 – Major corridors (like US 3, US 4, US 202, and Route 16)
- Tier 3 – Collectors (like Route 112, Route 31, and Route 155)
- Tier 4 – Secondary highways and unnumbered routes

Making Sustainable Investments

The road network in New Hampshire required a massive investment of public funds over many decades. In order to maximize that prior investment along with current and future investments, strategies are developed for different types of roads to get the most out of them.

Preservation – Keeping good roads good

Pavement, like just about everything else that endures wear and tear, needs some attention every now and then to stay in good working condition. A variety of **low-cost** pavement treatments are used to maintain roads in good working condition for as long as possible. The low-impact nature of these treatments means that the disruption from construction may only last a few weeks, however, these treatments can only be used on roads that are already in good shape.

Rehabilitation – Restoring poor pavements

The result of this activity is a new pavement that can be preserved for many years. Rehabilitation is not suitable for every road that needs attention although particular site conditions can significantly affect the cost and how long the rehabilitated road will last. These activities are generally **moderate-cost** and may take a couple months to complete. Rehabilitation will be evaluated for cost effectiveness on a case by case basis.

Reconstruction – Making a good road

Because the road network in New Hampshire has developed organically over many decades, many roads were not built on a good foundation. These roads present a challenge for sustainability because no investment in them, short of reconstruction, will last for very long. Reconstruction has a **high-cost** and may take more than a year to complete. This activity is not a priority of the Pavement Strategy because we are seeking to maximize the effectiveness of limited paving budgets and reconstruction can be **cost prohibitive**.

Maintenance Paving - Keeping roads in working order

Many roads in NH have never been formally constructed to support today's heavy truck loads and traffic volumes. As a result, these roads are susceptible to frost action, pavement rutting, cracking and potholes. These roads are not suitable for preservation treatments and rehabilitation is not always practical or affordable.

For these types of roads maintenance paving will be performed based on a condition assessment and traffic volume. The condition assessment essentially measures how bumpy the road is and how severe those bumps are. This type of paving is **low-cost**, will only take a few days to complete, and will become routine to keep the road in working order.

Table 1 – Pavement Strategy Priority

Pavement Strategies	Tier 1	Tier 2	Tier 3	Tier 4
Preservation	High	High	Moderate	Moderate
Rehabilitation	High	Low	Low	Low
Reconstruction	-	-	-	-
Maintenance Paving	-	Moderate	Moderate	Moderate

NHDOT Pavement Strategy - Definitions

Maintenance Paving Strategy – Keeping roads in working order

Definition – A long term strategy that uses low cost paving treatments applied before the road surface becomes too rough. Roughness is measured on a regular basis for every state managed road. From a practical standpoint, a road is too rough when it becomes difficult to maintain in the winter, causes drivers to drive below the speed limit or to drive outside the normal travel lanes.

Department's Perspective – When a preservation strategy is not well suited for a road, the Department uses a maintenance paving strategy. The purpose of maintenance paving is to keep roads serviceable. Because maintenance paving is triggered by poor road surface conditions, the Department may receive complaints prior to paving. Unlike roads in preservation, the road surface will not always be in good or fair condition. Due to economic impacts and road surface conditions, this strategy is not recommended for high use roads.

Preservation Strategy – Keeping good roads good

Definition – A long term strategy that uses low cost paving treatments at a higher frequency (approximately every 5 years) in order to sustain a good driving surface.

Department's Perspective – Keeping good roads good should be applied where possible. For a low-cost investment, preservation keeps the road surface in good condition which maximizes value. Unfortunately, not all roads can be preserved due to how they were initially constructed.

Reconstruction Project – Making a good road

Definition – A one time project applied to a section of road where the Department improves the condition of deteriorated asphalt as well as the underlying material.

Department's Perspective – This is not a recommended Department strategy to remedy pavement condition. Reconstruction is very expensive and is not justified on a life cycle basis. Reconstruction projects are proposed only when there is some other issue with the road, beyond pavement condition, such as congestion or safety concerns.

Rehabilitation Project – Restoring poor pavements

Definition – A one time project applied to a section of road where the Department improves the condition of the deteriorated asphalt but does not disturb the underlying material.

Department's Perspective – This strategy is used to move a road from a maintenance strategy to a preservation strategy. Due to the high costs of rehabilitation, in many cases, it is more cost effective on a life cycle basis just to maintenance pave. Due to the costs involved, rehabilitation should primarily focus on Tier 1 roads.

Costs

All costs are approximate and are evolving as data is further analyzed for pavement treatment life cycles and cost. As such, these costs and treatments will change over time and are based on information as of 2014. The associated costs for preservation and maintenance are shown in Table 1. Costs in Table 1 are the annual average cost per mile for the strategy. This cost is not the amount to construct the project; rather, it is the amount of money that should be saved each year to implement the strategy per mile of road. A simple analogy would be a roof which costs $20,000 to replace every 20 years. The annual average cost of the roof would be $1,000 per year ($20,000 / 20 years).

Table 1: Annual Average Cost per Mile for Preservation and Maintenance Strategies

Strategy	Tier 1	Tier 2	Tier 3	Tier 4
Preservation	$26,000	$11,000	$8,000	$6,000
Maintenance Paving	N/A*	$11,000	$8,000	$7,000

All costs are annual average cost per mile of road.

* All Tier 1 roads will be in preservation within 10 years as such there is no maintenance paving.

The associated costs for rehabilitation and reconstruction are shown in Table 2. These are the approximate one time costs to construct the project. The costs do not include any preservation costs incurred after the project. The costs for rehabilitation and reconstruction are highly variable and are dependent on a number of factors such as property, utility, drainage, and environmental impacts.

Table 2: Range of One Time Project Costs per Mile

Strategy	Tier 1	Tier 2	Tier 3	Tier 4
Rehabilitation	$700,000	$250,000 to $700,000	$250,000 to $700,000	$250,000 to $700,000
Reconstruction	$1,000,000 to $5,000,000^{+}	$1,000,000 to $5,000,000^{+}	$1,000,000 to $5,000,000^{+}	$1,000,000 to $5,000,000^{+}

NHDOT Bridge Strategy - Summary

The New Hampshire Department of Transportation (NHDOT) is focused on managing the state's transportation network as efficiently and effectively as possible. With that goal in mind, the Bridge Strategy is based on the following concepts:

1. Bridge Priorities (Tiers)
2. Making Sustainable Investments
3. Redundant Bridges

Bridge Priorities (Tiers) - Not all bridges are equal

While every bridge is critical to the people and businesses that rely upon it, each bridge also serves a different number of users and provides different levels of connectivity between homes, businesses, and other destinations. The Department has categorized the state managed road system and the bridges along each road into the following priorities (tiers):

- High Investment Bridges (HIB) – Largest & most costly bridges (Memorial, I-95, Amoskeag, etc.)
- Tier 1 – Interstates, Turnpikes & the divided section of Route 101
- Tier 2 – Major corridors (like US 3, US 4, US 202, and Route 16)
- Tier 3 – Collectors (like Route 112, Route 31, and Route 155)
- Tier 4 – Secondary highways and unnumbered routes

In addition to tiers NHDOT focuses on bridge condition to prioritize work. All bridges are regularly inspected (once every two years) and those found to have structural deficiencies or that are weight restricted are added to the NHDOT Red List. Bridges on the Red List are inspected twice each year and evaluated for rehabilitation or reconstruction. NHDOT uses tiers and bridge condition to develop an annual Priority List for bridges. Other factors like traffic volume and detour length are also considered in the development of the Priority List.

Making Sustainable Investments

New Hampshire's inventory of more than 3,800 bridges required a massive initial investment of public funds over many decades. To maximize the return on that investment, bridges require a thorough preservation and maintenance strategy. For recently constructed bridges, our goal is to extend the expected service life up to and beyond 120 years. This strategy relies on recurring investments in preservation and maintenance which reduces the frequency of higher-cost reconstruction and replacement projects.

Maintenance & Preservation – Keeping good bridges good

Bridges are made up of many different parts working together and each of those parts requires upkeep to stay in good working order. Upkeep includes everything from washing to repairing damage to replacing certain parts that wear out over time. This type of upkeep is generally **low-cost**, but can vary based on how large and busy a bridge is. The impact to travelers would normally be between a few hours and several months. Routine maintenance and preservation performed on-schedule will keep bridges operating for as long as possible before more substantial work is required.

Rehabilitation – Restoring poor bridges

Because certain parts of a bridge cannot be maintained or repaired forever, every bridge will require rehabilitation at some point in its lifecycle. The result of rehabilitation is a bridge that can be maintained and preserved for many years to come. These activities are generally **moderate-cost** and usually take several months or up to a year to complete.

Reconstruction – Making a good bridge

Most bridges will need to be reconstructed at some point because certain parts that are difficult to rehabilitate deteriorate over time. The result of reconstruction is a brand new bridge that is very similar in function to the prior bridge. Reconstruction is **high-cost** and requires 1 to 3 years to complete. Because of the high cost, each bridge must be carefully evaluated to determine when or if it should be reconstructed, down-posted, or closed.

Table 1 – Bridge Strategy Investment Priority

Bridge Strategies	HIB	Tier 1	Tier 2	Tier 3	Tier 4
Maintenance	High	High	High	High	High
Preservation	High	High	High	High	High
Rehabilitation	High	High	High	Moderate	Low
Reconstruction	High	High	Moderate	Low	Low

Redundant Bridges – Should all bridges be kept open

Each bridge required a substantial initial investment made by the people of New Hampshire and our goal is to protect that investment for as long as possible. In addition, each bridge also requires a recurring investment for routine maintenance, preservation, rehabilitation, and, ultimately, reconstruction. Over the years, new roads and bridges have been built that may make certain bridges somewhat redundant. With limited resources we must evaluate whether or not continued long-term investment is justified on redundant bridges.

Signature Page

New Hampshire Department of Transportation –
Bridge Strategy

Approved by:

Date 3/24/15

David J. Brillhart
Acting Commissioner
New Hampshire Dept. of Transportation

NHDOT Bridge Strategy - Definitions

Maintenance & Preservation Bridge Strategy – Getting the most for what you paid for

Definition – A long term strategy that uses a variety of small to mid size efforts to extend the life of the bridge. Maintenance includes activities like washing and sealing a bridge, cleaning drainage, and keeping vegetation controlled. Preservation includes activities like replacing joints, sealing cracks, and replacing the membrane.

Department's Perspective – Like most things, bridge's last longer when proper maintenance and preservation work is performed. For each type of bridge, there is a recommended preservation and maintenance schedule that should be followed. Unfortunately, there is not always enough money to follow the recommended schedule because the NHDOT is currently focused on red list bridges. Performing regular preservation & maintenance will cost the state less money in the long run than focusing on the Red List, but it will cost more money in the short run.

Rehabilitation Project – Restoring poor bridges

Definition – A one-time project that significantly improves the condition of the major parts of a bridge while keeping the underlying structure in place. Most often this type of project will replace the part of the bridge that travelers drive on (deck).

Department's Perspective – A bridge rehabilitation project requires more work than scheduled preservation / maintenance, but does not require a brand new bridge (reconstruction). This work is used when major parts of the bridge need to be replaced, but there is some life left in other parts of the bridge. Because this strategy involves replacing major parts of the bridge, it should only be used when those parts have been used for as long as possible and should be planed for in advance as part of the Department's Ten Year Transportation Improvement Plan.

Reconstruction Project – A new bridge is needed.

Definition – A one time project that replaces an entire bridge with a brand new bridge.

Department's Perspective – Reconstruction happens when the entire bridge is too deteriorated to cost effectively rehabilitate. This high-cost work has a significant impact on traffic and often requires detours and temporary bridges. While this work cannot be completely avoided, it can be postponed by using good maintenance and preservation strategies. Bridge reconstruction should be planned well in advance of when the funds will be needed.

Red List – A backlog of poor condition bridges.

Definition – A list of state and municipal bridges that have structural deficiencies.

Department's Perspective – In order to protect the traveling public, NHDOT inspects municipal and state bridges. Through the natural lifecycle of bridge components every bridge will at some point be on the Red List. A bridge being on the Red List is not a bad thing as long as there are plans to address the deficiency in a timely fashion before the bridge is down posted, closed, or requires special interim attention. Depending on the deficiency, rehabilitation or reconstruction may be used to remove the bridge from the red list. When funding levels are not sufficient this list grows in length.

Costs

All costs are approximate and are evolving as data is further analyzed for bridge treatment life cycles and cost. As such, these costs and treatments will change over time and are based on information as of 2014. The associated costs for preservation and maintenance are shown in Table 1 and are the average cost for a typical bridge in that tier.

Table 1: Yearly Cost for Bridge Preservation and Maintenance Strategies

Strategy	HIB	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Preservation and Maintenance						

The associated costs for rehabilitation and reconstruction are shown in Table 2. These are the approximate one time costs to construct the project. The costs do not include any maintenance / preservation costs incurred after the project. The costs for reconstruction are highly variable and are dependent on a number of factors such as the width and length of the bridge, property impacts, and environmental impacts.

Table 2: Range of One Time Project Costs per Bridge.

Strategy	HIB	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Rehabilitation	$xxx,xxx to $xxx,xxx	$xxx,xxx to $xxx,xxx	$xxx,xxx to $xxx,xxx	$xxx,xxx to $xxx,xxx	$xxx,xxx to $xxx,xxx	$xxx,xxx to $xxx,xxx
Reconstruction	$x,xxx,xxx to $ x,xxx,xxx+	$x,xxx,xxx to $ x,xxx,xxx+	$ x,xxx,xxx to $ x,xxx,xxx+	$ x,xxx,xxx to $ x,xxx,xxx+	$ x,xxx,xxx to $ x,xxx,xxx+	$ x,xxx,xxx to $ x,xxx,xxx+

Typical Bridge Work Schedule

In order to get the most out of the initial investment, the state should follow a routine work schedule. While schedules for individual bridges vary depending on geography and type of bridge, Table 3 lists scheduled work efforts for a typical bridge.

Table 3: Typical Bridge Schedule Work Effort.

Category	Work Effort
Preservation / Maintenance	Wash and Oil Every Year
	Crack Seal (every 10 years starting in year 5)
	Pave (every 10 years starting in year 10)
	Replace Membrane and Joints (every 20 years)
Rehabilitation	Replace Worn Out Components (year 60)
Reconstruction	Completely Replace Bridge (year 120)

ATTACHMENT 3

ROCKINGHAM PLANNING COMMISSION

ATTACHMENT MPO 3

156 Water Street, Exeter, NH 03833
Tel. 603-778-0885 ◆ Fax: 603-778-9183
email@rpc-nh.org ◆ www.rpc-nh.org

Memorandum

DATE: April 2, 2015

TO: MPO Policy Committee

FROM: David Walker

RE UPWP for FY16 and FY17

The Unified Planning Work Program (UPWP) is the document that guides the work that the MPO undertakes over a two year period. It translates establishes planning priorities, expected work products, and general timeframes for project completion. The MPO planning functions are supported by FHWA Urban Planning (PL) and FTA Transit Planning funds which are combined together under FHWA jurisdiction in a unified contract. These funds are supplemented by Federal State Planning and Research (SPR) funds apportioned to New Hampshire, and all must be matched with a 20% local contribution. One half of that 20% match is provided via RPC community dues. The other half is provided by NHDOT via "Turnpike Toll Credits" which allows the MPO meet the match requirement but provides no actual revenue.

The Policy Committee discussed an earlier draft of the UPWP at the February meeting and the document has been revised substantially since that time based on comments from commissioners, NHDOT, FHWA, and FTA. The bulk of the revisions involved including more robust explanations of particular tasks and work efforts but there were a few other important changes that need to be called out:

- Road Surface Management Systems Task Added (Task 402)
- Bike and Pedestrian Planning (Task 211) separated from Transit and TDM (Task 506)
- Road Infrastructure Vulnerability Analysis relocated to Planning Support (Task 403)
- Budget assumptions and distributions adjusted
- Several completed projects were removed

The TAC reviewed the UPWP at the March 26th meeting and after a short discussion regarding the Road Surface Management Systems task, recommended that the Policy Committee approve the document.

A final UPWP for FY 2016 and FY 2017 needs to be submitted to NHDOT early in April in order to get through the contract approval process in time for the July 1st start date.

Recommended Action: Approve the 2016-2017 UPWP

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Attachment
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2016-2017

Unified Planning Work Program

ROCKINGHAM
PLANNING
COMMISSION

DRAFT

ENDORSEMENTS

Committee/Agency	***Date of Endorsement***	***Amended***
ROCKINGHAM PLANNING COMMISSION		
Technical Advisory Committee		
MPO Policy Committee		
Technical & Budget Revisions (Funding & Task Tables)		
NH DEPARTMENT OF TRANSPORTATION		

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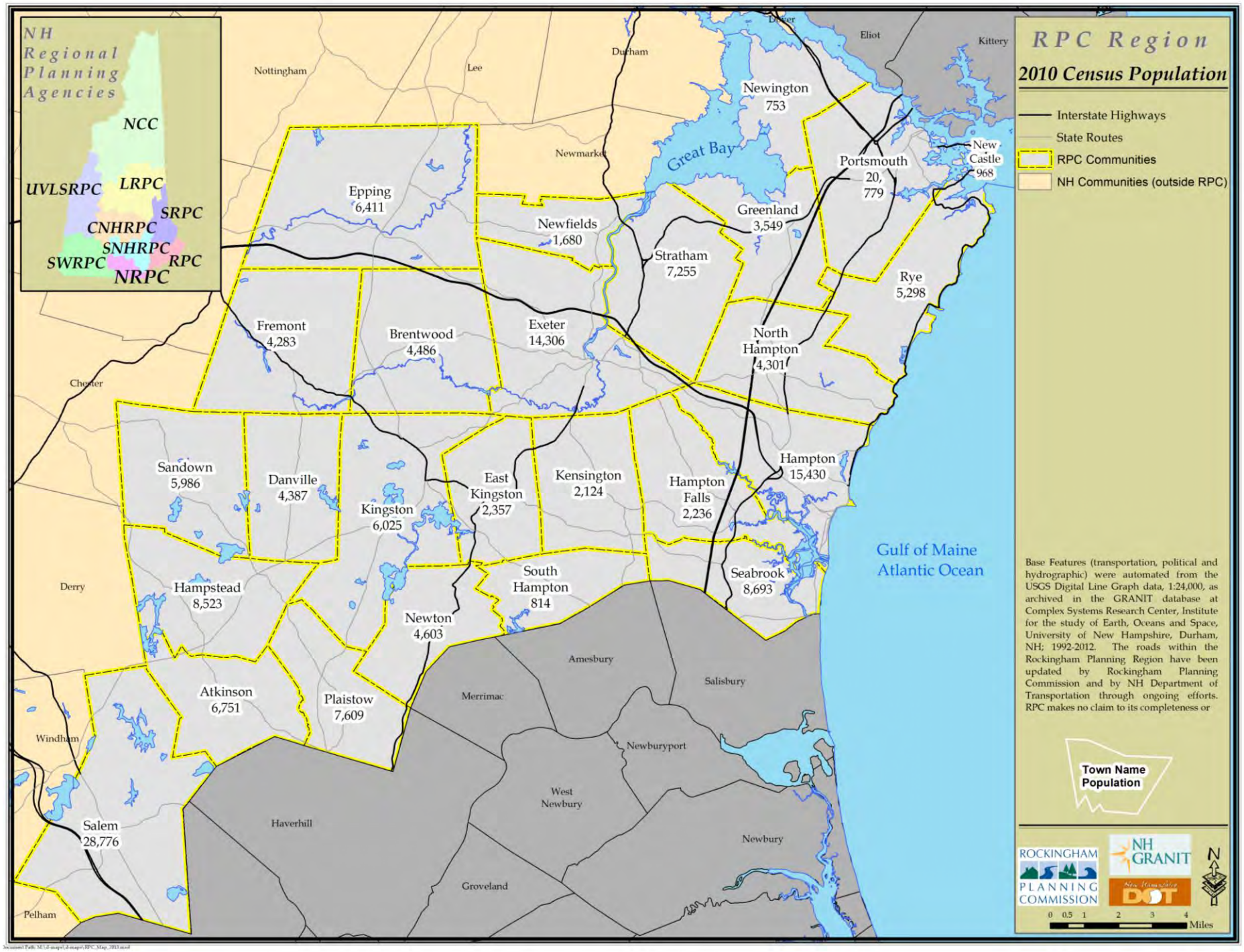
NH Regional Planning Agencies
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Portsmouth
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Castle
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Epping
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Merrimac
Atkinson
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Plaistow
7,609
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Newburyport
West
Newbury
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Salem
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Newbury
Groveland
Pelham
Base Features (transportation, political and hydrographic) were automated from the USGS Digital Line Graph data, 1:24,000, as archived in the GRANIT database at Complex Systems Research Center, Institute for the study of Earth, Oceans and Space, University of New Hampshire, Durham, NH; 1992-2012. The roads within the Rockingham Planning Region have been updated by Rockingham Planning Commission and by NH Department of Transportation through ongoing efforts. RPC makes no claim to its completeness or
Town Name
Population
ROCKINGHAM
PLANNING
COMMISSION
NH
GRANIT
DOT
N
0 0.5 1 2 3 4
Miles

Figure 2: Staff Organization

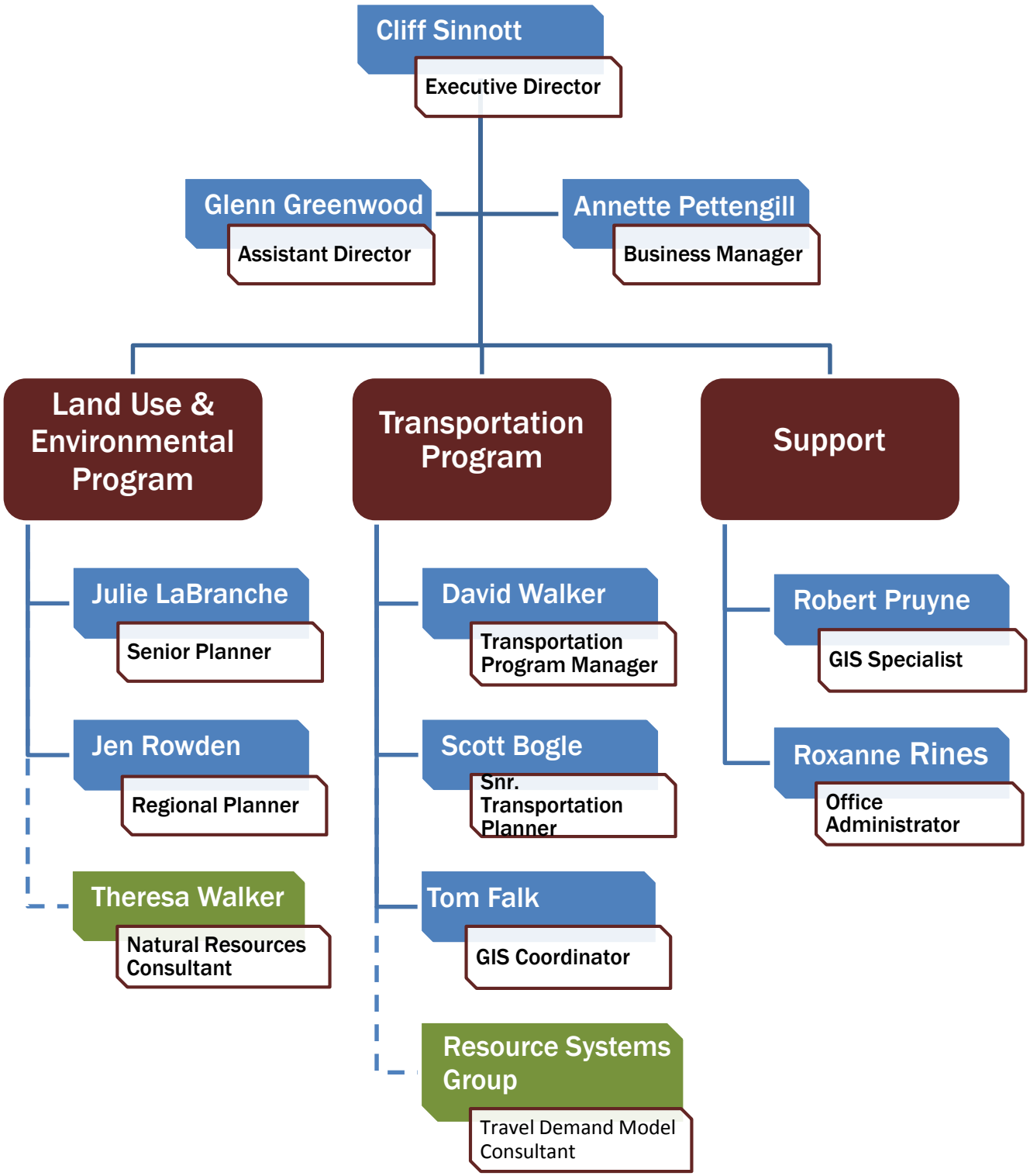


Figure 3: LIST OF ABBREVIATIONS and ACRONYMS

ACT .....Alliance for Community Transportation
ADA.....Americans with Disabilities Act of 1990
ADT/AADT .....Average Daily Traffic / Average Annual Daily Traffic
CAAA.....Clean Air Act Amendments of 1990
CFR.....Code of Federal Regulations
CMAQ.....Congestion Mitigation/Air Quality Program
CART .....Greater Derry-Salem Cooperative Alliance for Regional Transportation
COAST.....Cooperative Alliance for Regional Transportation
CTPP .....Census Transportation Planning Package
DBE/WBE.....Disadvantaged Business Enterprises/Women's Business Enterprises
FHWA .....Federal Highway Administration
FTA.....Federal Transit Administration
GIS .....Geographic Information System
GPS .....Global Positioning System
HPMS.....Highway Performance Monitoring System
HPR.....Highway Planning and Research Funds
ISTEA.....Intermodal Surface Transportation Efficiency Act of 1991
MVPC.....Merrimack Valley Planning Commission
MVRTA.....Merrimack Valley Regional Transit Authority
MPO.....Metropolitan Planning Organization
MSA .....Metropolitan Statistical Area
MAP-21.....Moving Ahead for Progress in the 21st Century
NHDES .....New Hampshire Department of Environmental Services
NHDHHS .....New Hampshire Department of Health & Human Services
NHDOT.....New Hampshire Department of Transportation
NRPC.....Nashua Regional Planning Commission
OEP.....New Hampshire Office of Energy & Planning
PL.....MPO Planning Funds administered by FHWA
RCC .....Regional Coordinating Council for Community Transportation
RPC .....Rockingham Planning Commission
RTAP .....Rural Technical Assistance Program
SAC .....Special Advisory Committee on Transportation Needs for the Elderly and Disabled
SAFETEA-LU .....Safe Accountable Flexible Efficient Transportation Equity Act – Legacy for Users
SABR .....Seacoast Area Bicycle Routes
SCC.....State Coordinating Council for Community Transportation
SIP.....State Implementation Plan (for Air Quality Conformity)
SMRPC .....Southern Maine Regional Planning Commission
TAC .....Technical Advisory Committee
TASC .....Transportation Assistance for Seacoast Citizens
TAZ.....Traffic Analysis Zone
TCSP.....Transportation and Community System Preservation
TDM.....Transportation Demand Management
TMA.....Transportation Management Association –ALSO- Transportation Management Area
TEA-21 .....Transportation Equity Act for the 21st Century
TIP.....Transportation Improvement Program
UZA.....Urbanized Area
UPWP .....Unified Planning Work Program
3Cs.....Continuing, Comprehensive, and Cooperative Transportation Planning

Table 1: Revenues and Expenditures

2016-2017 UPWP Revenues

	Total	2016	2017
2015-16 PL Funds	$ 642,680	$ 321,340	$ 321,340
Transfer from FTA	$ 163,710	$ 81,855	$ 81,855
State Planning & Research Funds	$ 180,000	$ 90,000	$ 90,000
Total Federal Funds	$ 986,390	$ 493,195	$ 493,195
RPC Match*	$ 109,599	$ 54,799	$ 54,799
Total Revenues	**$ 1,095,989**	**$ 547,994**	**$ 547,994**

Planned Expenditures

	Total Hours	2016 Hours	2017 Hours	Total	2016	2017
Personnel Expenditures	**15410**	**7760**	**7650**	**$ 997,611**	**$ 498,777**	**$ 498,834**
Category 100: MPO Administration	2040	960	1080	$ 148,687	$ 69,014	$ 79,673
Category 200: Policy & Planning	5440	2760	2680	$ 374,248	$ 189,154	$ 185,093
Category 300: Public Involvement	920	480	440	$ 60,205	$ 31,249	$ 28,956
Category 400: Planning Support	4270	2280	1990	$ 219,065	$ 117,719	$ 101,346
Category 500: Technical Assistance	2740	1280	1460	$ 195,405	$ 91,640	$ 103,765
Non-Personnel Expenditures				**$ 98,378**	**$ 49,217**	**$ 49,161**
6114 Office Supplies				**$ 1,138**	**$ 597**	**$ 541**
6115 Contracted Services				**$ 60,000**	**$ 30,000**	**$ 30,000**
6116 Travel				**$ 10,000**	**$ 5,000**	**$ 5,000**
6117 Newspaper/Media				**$ 6,000**	**$ 3,000**	**$ 3,000**
6120 Dues/Subscriptions				**$ 2,640**	**$ 1,320**	**$ 1,320**
6121 Training & Workshops				**$ 5,000**	**$ 2,500**	**$ 2,500**
6124 Equipment				**$ 5,000**	**$ 2,500**	**$ 2,500**
6125 Equipment & Software Maintenance				**$ 8,000**	**$ 4,000**	**$ 4,000**
6126 Telephone				**$ 600**	**$ 300**	**$ 300**
Total Expenditures				**$ 1,095,989**	**$ 547,994**	**$ 547,995**

* The Required 20% match is provided 1/2 by the RPC funds and State Turnpike Toll Credits that provide no revenue to the RPC.

	Percentage of Hours	Percentage of Funding
Category 100: Administration	13%	15%
Category 200: Policy & Planning	35%	38%
Category 300: Public Involvement	6%	6%
Category 400: Planning Support	28%	22%
Category 500: Technical Assistance	18%	20%

	2016	2017	Total	% of Total Hours
Executive Director	680	640	1320	9%
Assistant Director	40	40	80	1%
Transportation Program Manager	1720	1720	3440	23%
Senior Transportation Planner	1720	1720	3440	23%
Transportation Analyst/GIS	1600	1600	3200	21%
GIS Specialist	340	320	660	5%
Planners (2)	680	640	1320	9%
Business Manager	120	120	240	2%
Office Administrator	200	200	400	3%
Intern(s)	660	650	1310	9%
	7760	7650	15410	

TABLE 2

FY 16-17 Metropolitan Planning Funds -- Annual Local Match Requirments

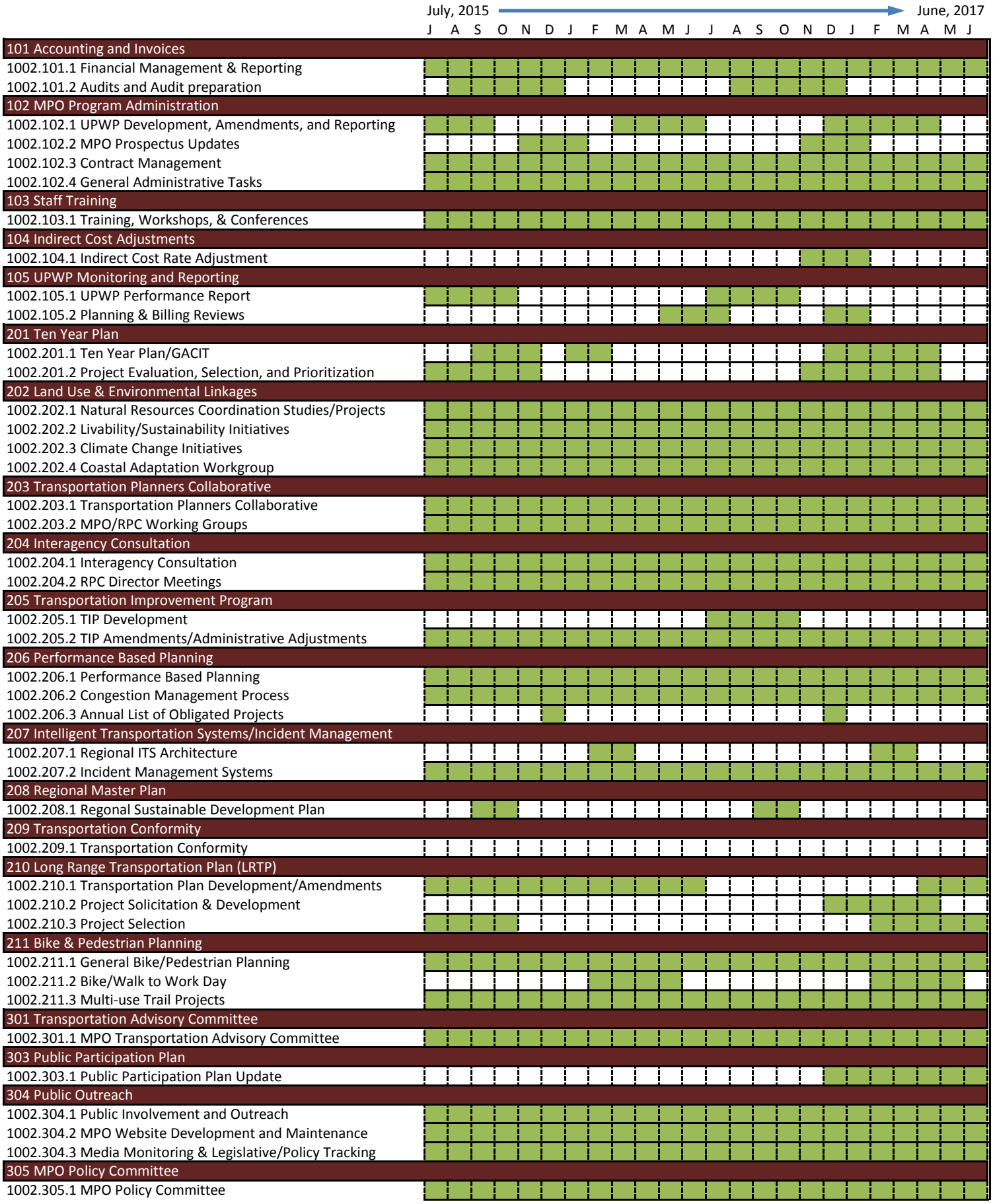
	POPULATION DISTRIBUTION				FHWA (PL) FUNDS				LOCAL MATCH (DUES) FUNDS					
	2000 Pop	DOT Adjusted 2000Pop	2013 Pop	Pop. Share of MPO	PL Funds	PL State Match*	PL Local Match**	Total PL	Total Local Match	FY-2016 Dues Assessed	Dues per capita (2015 Pop)	Portion of Dues for MPO Match	Adjusted Local Match to Account for Non-dues	Additional Dues Used to Cover Non-members
ATKINSON	6,178	6,178	6,732	3.7%	$ 18,470	$ 2,052	$ 2,052	$ 20,522	$ 2,052	$ 6,463	$ 0.96	31.8%	$ 2,441.87	$ 390
BRENTWOOD	3,197	2,398	4,666	2.6%	$ 12,801	$ 1,422	$ 1,422	$ 14,224	$ 1,422	$ 4,479	$ 0.96	31.8%	$ 1,692	$ 270
DANVILLE	4,023	4,023	4,436	2.5%	$ 12,170	$ 1,352	$ 1,352	$ 13,523	$ 1,352	$ 4,259	$ 0.96	31.8%	$ 1,609.05	$ 257
E. KINGSTON	1,784	1,784	2,372	1.3%	$ 6,508	$ 723	$ 723	$ 7,231	$ 723	$ 2,277	$ 0.96	3.5%	$ 860	$ 137
EPPING	5,476	5,476	6,617	3.7%	$ 18,154	$ 2,017	$ 2,017	$ 20,171	$ 2,017	$ 6,352	$ 0.96	31.8%	$ 2,400	$ 383
EXETER	14,058	14,058	14,454	8.0%	$ 39,655	$ 4,406	$ 4,406	$ 44,061	$ 4,406	$ 11,738	$ 0.81	37.5%	$ 5,243	$ 837
FREMONT	3,510	3,510	4,432	2.5%	$ 12,159	$ 1,351	$ 1,351	$ 13,510	$ 1,351	$ 4,255	$ 0.96	31.8%	$ 1,608	$ 257
GREENLAND	3,208	3,208	3,699	2.1%	$ 10,148	$ 1,128	$ 1,128	$ 11,276	$ 1,128	$ 3,551	$ 0.96	31.8%	$ 1,342	$ 214
HAMPSTEAD	8,297	8,297	8,547	4.8%	$ 23,449	$ 2,605	$ 2,605	$ 26,055	$ 2,605	$ 8,205	$ 0.96	31.8%	$ 3,100	$ 495
HAMPTON	14,937	14,937	14,979	8.3%	$ 41,096	$ 4,566	$ 4,566	$ 45,662	$ 4,566	$ 11,990	$ 0.80	38.1%	$ 5,433	$ 867
HAMPTON FALLS	1,880	1,880	2,241	1.2%	$ 6,148	$ 683	$ 683	$ 6,831	$ 683	$ 2,151	$ 0.96	31.8%	$ 813	$ 130
KENSINGTON	1,893	1,420	2,113	1.2%	$ 5,797	$ 644	$ 644	$ 6,441	$ 644	$ 2,028	$ 0.96	31.8%	$ 766	$ 122
KINGSTON	5,862	5,862	6,011	3.3%	$ 16,492	$ 1,832	$ 1,832	$ 18,324	$ 1,832	$ 5,771	$ 0.96	31.8%	$ 2,180	$ 348
NEW CASTLE	1,010	1,010	971	0.5%	$ 2,664	$ 296	$ 296	$ 2,960	$ 296	$ 932	$ 0.96	31.8%	$ 352	$ 56
NEWFIELDS	1,551	1,551	1,683	0.9%	$ 4,617	$ 513	$ 513	$ 5,130	$ 513	$ 1,616	$ 0.96	31.8%	$ 610	$ 97
NEWINGTON	775	775	748	0.4%	$ 2,052	$ 228	$ 228	$ 2,280	$ 228	$ 718	$ 0.96	31.8%	$ 271	$ 43
NEWTON	4,289	4,289	4,734	2.6%	$ 12,988	$ 1,443	$ 1,443	$ 14,431	$ 1,443	$ 4,545	$ 0.96	31.8%	$ 1,717	$ 274
NORTHHAMPTON	4,259	4,259	4,421	2.5%	$ 12,129	$ 1,348	$ 1,348	$ 13,477	$ 1,348	$ 4,244	$ 0.96	31.8%	$ 1,604	$ 256
PLAISTOW	7,747	7,747	7,563	4.2%	$ 20,749	$ 2,305	$ 2,305	$ 23,055	$ 2,305	$ 7,260	$ 0.96	31.8%	$ 2,743	$ 438
PORTSMOUTH	20,784	20,784	21,280	11.8%	$ 58,383	$ 6,487	$ 6,487	$ 64,870	$ 6,487	$ 14,707	$ 0.69	44.1%	$ 7,719	$ 1,232
RYE	5,182	5,182	5,336	3.0%	$ 14,640	$ 1,627	$ 1,627	$ 16,266	$ 1,627	$ 5,123	$ 0.96	31.8%	$ 1,936	$ 309
SALEM***	28,112	28,112	28,688	16.0%	$ 78,707	$ 8,745	$ 8,745	$ 87,452	$ 8,745	$ 16,485	$ 0.57	53.0%	$ -	NA
SANDOWN	5,143	5,143	6,184	3.4%	$ 16,966	$ 1,885	$ 1,885	$ 18,851	$ 1,885	$ 5,937	$ 0.96	31.8%	$ 2,243	$ 358
SEABROOK	7,934	7,934	8,768	4.9%	$ 24,055	$ 2,673	$ 2,673	$ 26,728	$ 2,673	$ 8,417	$ 0.96	31.8%	$ 3,180	$ 508
SO. HAMPTON	844	633	810	0.5%	$ 2,222	$ 247	$ 247	$ 2,469	$ 247	$ 778	$ 0.96	31.8%	$ 294	$ 47
STRATHAM	6,355	6,355	7,280	4.0%	$ 19,973	$ 2,219	$ 2,219	$ 22,192	$ 2,219	$ 6,989	$ 0.96	31.8%	$ 2,641	$ 421
SUB-TOTAL	**168,288**	**166,805**	**179,765**	**100.0%**	**$ 493,195**	**$ 54,799**	**$ 54,799**	**$ 602,794**	**$ 54,799**	**$ 134,784**	**$ 0.76**	**40.7%**	**$ 54,799**	**$ 8,745**

* State match is provided utilizing Toll Credits not actual funding

** This distribution is shown as if the State of NH was paying 1/2 of the match.

*** = Non-dues paying/non-member

Table 3: Schedule of Tasks and Deliverables



July, 2015 → June, 2017

J A S O N D J F M A M J J A S O N D J F M A M J

401 Traffic Count Program
1002.401.1 Traffic Count Program
1002.401.2 Additional Traffic Counts/Studies
402 Road Surface Management Systems (RSMS)
1002.402.1 RSMS Data Collection and Analysis
403 Geographic Information Systems
1002.403.1 Geographic Information Systems (GIS)
1002.403.2 Regional Buildout Analyses
1002.501.5 Road Infrastructure Vulnerability Assessment
404 Demographics
1002.404.1 Population and Employment Projections
405 Equipment
1002.405.1 Equipment & Resources
406 Transportation Model
1002.406.1 Travel Demand Modeling
1002.406.2 Model maintenance, updates and enhancements
1002.406.3 Scenario Planning
501 Local & Regional Assistance
1002.501.1 General Transportation Planning Assistance
1002.501.2 Development Impact Review
1002.501.3 Special Projects Scoping
1002.501.4 Complete Streets Policy/Guidance
1002.501.5 Access Management Guidebook Update
1002.501.6 Scenic Byway CMP Implementation
1002.501.7 Safe Routes To School Committee Support
1002.501.8 RPC Executive Director Meetings
502 Statewide Assistance
1002.502.1 Project Implementation & Monitoring
1002.502.2 DOT Innitiatives/Reviews/Commitees/Work Groups
1002.502.3 Corridor Studies
503 Local Public Agency Support
1002.503.1 Transportation Alternatives Program
1002.503.2 Congestion Management & Air Quality Program
504 Special Projects
1002.504.1 Community Master Plan Chapters (Transp. Related)
1002.504.2 Transportation/Land Use Studies
505 Regional Coordinating Councils
1002.505.1 RCC Support - Southeast Region (ACT)
1002.505.2 RCC Support - Derry-Salem Region
1002.505.3 Locally Coordinated HHS Transit Plans
506 Transit and TDM Planning
1002.506.1 Technical Assistance to COAST
1002.506.2 Technical Assistance to CART
1002.506.3 Technical Assistance to TASC
1002.506.4 Regional/Intercity Transit Planning
1002.506.5 Statewide Community Transit Coordination
1002.506.6 TDM/TMA Support

July, 2015 → June, 2017

J A S O N D J F M A M J J A S O N D J F M A M J

Deliverables	
102: 2018-2019 UPWP	April, 2017
105: UPWP Performance Report for FY14-15	Due September 30, 2015
105: Mid-term UPWP Report/Meeting	Summer, 2016
105: FHWA Planning Review	January, 2017
201: Ten Year Plan Project Recommendations	April, 2017
201: GACIT Hearings	September-October, 2015
205: 2017-2020 Transportation Improvement Program	December, 2016
206: Annual List of Obligated Projects	December 31 each year
210: Long Range Transportation Plan Update	June, 2016
211: Regional Bike Route Plan	Corresponding w/ State Bike & Ped Plan
303: Public Participation Plan Update	June, 2017
403: Road Infrastructure Vulnerability Analysis	June, 2017

1.0 INTRODUCTION

The Unified Planning Work Program (UPWP) of the Rockingham Planning Commission Metropolitan Planning Organization (MPO) specifies the planning priorities and work tasks that the MPO will address during the program period. The development of the UPWP is required as part of the 3Cs metropolitan planning process and specifically the Metropolitan Planning Rules (23 CFR 450:308). The "unified" aspect, as indicated in the document name, means that it encompasses all MPO transportation planning activities that are foreseen at the time of its preparation, regardless of funding source or implementing agency.

The UPWP encompasses a two year scope of work and is developed in coordination with the NHDOT, FHWA and FTA. A two year scope is used instead of a single year to be more forward looking and to streamline the contracting process as well. Accordingly, this UPWP covers the MPO's planning work projected to occur in the ensuing two-year period, from July 1, 2015 to June 30, 2017.

The MPO study area extends to all 26 communities of the Rockingham Planning Commission as (until July 2013) all were located within a designated air quality non-attainment area. The MPO region is illustrated in **Figure 1**. Staffing of the MPO is provided by the Rockingham Planning Commission as shown in the organization chart (**Figure 2**). The Planning Commission, with the addition of appropriate State, Federal and regional transportation agencies, acts as the policy-making body of the MPO.

Consistent with past programs, this UPWP has been prepared to reflect the ongoing implementation of the Clean Air Act Amendments of 1990 (CAAA) and the last authorized Federal surface transportation act, Moving Ahead for Progress in the 21st Century (Map-21) passed in 2012. These laws and their implementing regulations mandate a high level of transportation planning and analysis as identified through the general Planning Factors identified in MAP-21 and in the annual emphasis areas suggested by FHWA and FTA. New planning regulations for MAP-21 have been drafted but not finalized and the MPO will continue to operate under the existing rules and regulations until new ones are approved. When new planning rules are approved changes in the UPWP may be required to reflect the new or amended provisions of the legislation.

2.0 CONTENTS OF THE UPWP

Section 450.308 of the Metropolitan Planning Rules (which implement the Metropolitan Planning requirements of MAP-21) specify that a UPWP should be developed cooperatively with the State (NHDOT) and the public transportation operators in the MPO area (COAST and CART) and should address the following elements:

- Planning priorities for the MPO;
- Work proposed for the program period by major activity and task (including activities to address the MAP-21 planning factors);
- The agency/entity responsible to perform each task;
- Schedule for performing the tasks;
- Anticipated products
- Funding sources, both totals by source and itemized by activity or task.

In addition, NHDOT has issued guidance on the contents of this UPWP which requests additional details regarding clearer identification of completion deadlines and deliverables for tasks that are not ongoing. Several requests regarding specific tasks to be undertaken are addressed as well.

DEVELOPMENT OF THE UPWP

The format and general contents of the UPWP were established by consensus of Federal, State, and Regional agencies in 2010. Budget information for the 2016-2017 period was provided to the RPC by NH DOT in December, 2014 and work began on developing a draft UPWP at that time. An initial draft was completed and provided to the TAC for review at the January 22, 2015 meeting and provided to NH DOT, FHWA, and FTA on January 29th, 2015 to review. A UPWP review meeting was held on March 18th, 2015 with input provided by NH DOT, FHWA, and FTA. The RPC Transportation Advisory Committee reviewed and recommended approval of the draft UPWP on March 26th, 2015 and this was followed by approval from the MPO Policy Committee on April 8th, 2015. Adjustments to budgets and activity descriptions continued during the approval process to reflect updated information.

PREVIOUS WORK

The proposed UPWP is, for the most part, the extension and continuation of past transportation planning work in the region. In some cases the work is part of an ongoing and/or mandated process, such as the support for Policy and TAC committees, traffic data collection, model maintenance, or TIP and Plan maintenance. In other cases it is a specific project or task with definable start and end points, as with the development of a Congestion Management Process (CMP), completion of a corridor study, development of MAP-21 compliant planning documents, and the identification of

specific tasks to address the 2016-2017 Planning Emphasis Areas identified by FHWA and FTA. In preparing the UPWP the status of all ongoing and carryover work was evaluated, including a review of the MPO UPWP Performance Report for FYs 2012-2013 (the last completed UPWP), the most recent MPO Planning review conducted by FHWA and FTA (January, 2013), and the most recent mid-contract UPWP review conducted with NHDOT (September, 2014).

Planning Factors and Requirements of MAP-21

When developing the work program for the FY 2016-2017 UPWP, the eight planning factors identified in 23 U.S. Code § 134 (23 C.F.R. Part 450.306 of the Planning Regulations) were considered. Each task and work product in the UPWP has a basis in one or more of these planning factors:

1. Support the economic viability of the metropolitan area, especially by enabling global - competitiveness, productivity and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system.

The metropolitan planning rules also specify several other elements that should be addressed in the scope of the planning process. They call for increased integration of transportation and land use planning, as well as consideration for employment and housing patterns, community and economic development, and the natural and built environment. Other elements identified in the rules focus on ensuring coordination and consistency with:

- the statewide planning process;
- intelligent transportation systems (ITS) architectures;
- a coordinated public transit-human services transportation plan;
- the Strategic Highway Safety Plan, and transit safety and security plans and programs
- the cooperative development of a Congestion Management Process involving adjacent MPOs and NHDOT;

The tasks identified within the FY 2016-2017 UPWP are consistent with the Planning Factors, transportation planning emphasis areas and the Goals and Objectives as identified in the Rockingham

MPO Long Range Transportation Plan. They are intended to facilitate the effective and efficient implementation of the Plan and Transportation Improvement Programs for the MPO area.

Organization of the UPWP

The UPWP summarizes the tasks that will be undertaken to support the MPO's planning effort. Each task is identified as part of one of the following work areas that are presented sequentially in Section 4.0 along with a description and the related SAFETEA-LU/MAP-21 Planning Factors:

CATEGORY 100 – Administration and Training

CATEGORY 200 – Policy and Planning

CATEGORY 300 – Public Involvement and Coordination

CATEGORY 400 – Plan Support

CATEGORY 500 – Technical Assistance and Support

Within each of these major program areas, tasks are listed which include the following elements:

- Objectives
- Proposed Activities
- Work products and schedules

Following the detailed discussion of the work tasks is a section that describes the other transportation planning activities that the MPO is involved with outside of the UPWP contract. The final section of the document provides details on funding sources, cost and distribution of hours, and scheduling of tasks for the two fiscal years.

Funding of the UPWP

The Unified Planning Work Program for the Rockingham MPO is primarily funded by the Federal Highway Administration (FHWA) through the Metropolitan Planning (PL) and the State Planning and Research (SPR) programs, and Federal Transit Administration (FTA) through the 5303 Program via a unified planning grant under FHWA purview. Federal sources, which pass through NHDOT, are subject to a 20% match of state and/or local funds as shown in **Table 1**. This match is currently provided by local revenues from the Rockingham Planning Commission (RPC) communities and with 10% Turnpike Toll Credits from NHDOT in place of actual dollars. **Table 2** shows the allocation of local funds used to support the metropolitan planning process and local funds required to match the PL and 5303 funds are collected by the RPC as a component of the annual dues assessment made to the communities within its planning district. The anticipated schedule for work tasks and deliverables are shown in **Table 3**.

3.0 PLANNING PRIORITIES

The work tasks identified and addressed in this UPWP reflect the transportation planning needs and priorities within the Rockingham Planning Commission region and are from several sources:

- Consultation with staff from FHWA, New Hampshire Division, FTA Region I, NHDOT Bureau of Planning and Community Assistance, COAST, and CART;
- Consultation with the MPO Technical Advisory Committee and Policy Committees.
- The requirements for implementing MAP-21 and current Metropolitan Planning Rules (CFR 450.300);
- The specific needs and circumstances of the MPO,
- Completion of certain tasks begun under the previous UPWP,
- Addressing findings and recommendations made during the MPO Planning Reviews conducted by FHWA and FTA in January of 2009 and 2013.

During the preparation of the UPWP, the FHWA New Hampshire Division Office and FTA Region I Office recommended that three national planning emphasis areas and 12 region specific emphasis areas be addressed as planning priorities. The priorities that have been developed for the RPC region from these various efforts are the following and the UPWP should reflect appropriate work elements and resources to address:

National Planning Emphasis Areas

1. ***Transition to Performance Based Planning and Programming***. The UPWP should include appropriate work towards the development and implementation of a performance management approach to transportation planning and programming that supports the achievement of transportation system performance outcomes.
2. ***Models of Regional Planning Cooperation***. The UPWP should promote cooperation and coordination across MPO boundaries and across State boundaries where appropriate to ensure a regional approach to transportation planning. This cooperation could occur through metropolitan planning agreements, through the development of joint planning products, or by other locally determined means.
3. ***Ladders of Opportunity.*** The UPWP should include work efforts that promote access to essential services as part of the transportation planning process. Essential services include housing, employment, health care, schools/education, and recreation. This work should include the identification and development of performance measures and analytical methods to measure the transportation system's connectivity to essential services. This information can then be used to identify gaps as well as solutions to address those gaps.

New Hampshire Planning Emphasis Areas

4. ***MAP-21 Compliance, Planning Performance Measures.*** The UPWP should include appropriate work efforts to ensure that the MPO complies with the metropolitan planning and programming requirements of MAP-21 and the subsequent planning regulations

developed by FHWA and FTA. Specifically, cooperative development of statewide and regional consensus, and collect data in support of the establishment of baseline and targeted performance measures are a top priority.

5. ***Urbanized Area Suballocation and Project Selection.*** MAP-21 requires suballocation of resources and project selection authority for the Surface Transportation (STP) and Transportation Alternatives (TAP) Programs and the UPWP should include the collaborative efforts to ensure that these requirements are implemented.
6. ***Congestion Management Process implementation.*** The MPO Congestion Management Process (CMP) has been established and work elements should support the data collection and monitoring efforts necessary to implement an effective CMP.
7. ***Freight Planning.*** Identify resources and work elements necessary to develop a metropolitan freight plan that assesses the condition and performance of the region's critical freight network and identifies solutions to freight bottlenecks and other deficiencies.
8. ***Fiscal Constraint and Financial Planning.*** Continue to improve methods and practices to show fiscal constraint (by year) in planning documents, and for projecting finances available to the MPO. Support the periodic updating of project scopes and estimates during the planning and programming stage of project development and estimating tools that can be consistently used by RPCs/MPOs or other agencies for typical transportation projects.
9. ***Metropolitan Travel Demand Model Maintenance.*** Ensuring that the MPO is maintaining the function and capacity of the travel demand model and keeping it up-to-date and developing applications to utilize the model in transportation planning functions.
10. ***Data Collection for HPMS and the CMP.*** Continue to assist with the collection of Highway Performance Monitoring System (HPMS) data and implement the data collection necessary for the Congestion Management Process (CMP).
11. ***Planning and Environmental Linkages.*** Work with Federal and State planning partners to deploy innovative planning techniques that can shorten project delivery times and can integrate environmental analysis, project purpose and need, and preliminary alternatives analysis into corridor studies and the Long Range Transportation Plan.
12. ***Climate Change.*** Ensure that the LRTP and other planning efforts address climate change impacts, identify transportation infrastructure vulnerabilities, as well as mitigation, and adaptation strategies.
13. ***Livability and Sustainability.*** Integrate the livability principles of more transportation choices, equitable, affordable housing, enhanced economic competitiveness, support for existing communities, coordinated policies, leveraging investments, and valuing communities and neighborhoods into the transportation planning process.
14. ***Project Monitoring.*** Take a more active role in tracking projects as they move from planning to implementation and support effective development of the MPO annual listing of obligated highway, bike/pedestrian, and transit projects.
15. ***Program Monitoring and Reporting.*** Federal law and planning regulations require reports documenting the activities performed with FHWA planning and research funds. The UPWP

will ensure that all program monitoring and reporting activities applicable to the MPO are implemented in a timely manner.

Along with the eight SAFETEA-LU Planning Factors, these areas of emphasis have been integrated into the UPWP tasks discussed in Section 4.0 and apply to each task as shown in ***Figure 4***.

Figure 4: Matrix of Tasks and Related Planning Factors and Emphasis Areas

Category & Task	Planning Factors								FHWA/FTA Planning Emphasis Areas														
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CATEGORY 100: MPO ADMINISTRATION																							
Task 101 Accounting & Invoices							✓		✓			✓											✓
Task 102 MPO Program Administration	✓						✓		✓			✓											✓
Task 103 Staff Training	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Task 104 Indirect Cost Rate Adjustment																							
Task 105 UPWP Monitoring and Reporting	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓				✓	✓	✓		✓	✓	✓	✓
CATEGORY 200: POLICY AND PLANNING																							
Task 201 State Ten Year Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Task 202 Land Use & Environmental Linkages	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓		✓			✓	✓	✓	✓	✓	
Task 203 Transportation Planners Collaborative	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓				✓			✓	✓	✓	✓	✓
Task 204 Interagency Consultation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Task 205 Transportation Improvement Program	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Task 206 Performance Based Planning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Task 207 Intelligent Transportation Systems		✓	✓			✓	✓		✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Task 208 Regional Master Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Task 209 Transportation Conformity	✓			✓	✓	✓	✓	✓	✓	✓		✓	✓	✓				✓		✓	✓	✓	
Task 210 Long Range Transportation Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Task 211 Bicycle and Pedestrian Planning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓
CATEGORY 300: PUBLIC INVOLVEMENT																							
Task 301 Technical Advisory Committee	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
Task 302 Planning Commission Meetings																							
Task 303 Public Participation Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
Task 304 Public Outreach	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
Task 305 Policy Committee	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
CATEGORY 400: PLAN SUPPORT																							
Task 401 Traffic Counts	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Task 402 Form 536							✓					✓		✓		✓							
Task 403 Geographic Information Systems	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Task 404 Demographics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Task 405 Equipment & Resources	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
Task 406 Transportation Model	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CATEGORY 500: TECHNICAL ASSISTANCE																							
Task 501 Local and Regional Assistance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
Task 502 Statewide Assistance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Task 503 Local Project Administration (LPA) Assistance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓		✓	✓	✓	✓
Task 504 Special Projects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Task 505 Regional Coordinating Councils	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	
Task 506 Transit and TDM Assistance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	

4.0 CATEGORY & TASK DESCRIPTIONS

Section 4 of the UPWP contains the detailed descriptions of the five work categories. The narrative for each includes the general purpose of the category and the tasks included under each. The task areas list the objective as well as the proposed activities and expected work products. Specific budgeting information related to these categories is include in tables at the beginning of the document which establishes the time and funding allocated to the specific tasks as well as the general timeframe and schedule in which they will be worked on. The RPC is the lead agency on all tasks except for where specifically noted in a particular activity or work product.

CATEGORY 100: MPO ADMINISTRATION

Purpose: Facilitates administration of the MPO and its grants, the development of the MPO Prospectus and UPWP, financial management, training of staff, and conduct of other activities needed to maintain compliance with MPO requirements.

Task 101 — Accounting and Invoices

Objective: Staff efforts related to the development, submittal, and approval of reimbursement requests, for monitoring financial controls and ensuring compliance with contract obligations.

Proposed Activities & Products

1. **Financial Management and Reporting:** The day to day accounting needs of the MPO. This includes continued refinements to the MPO financial accounting and reporting system to better meet agency and reporting needs. Includes the development and monitoring of the Indirect Cost Rate in accordance with OMB Circular A-87 as a predetermined fixe indirect cost rate to be used as the basis of monthly billing and cost allocation and adjusted post-audit.

   Work Product: Monthly UPWP invoices

   Work Product: Indirect Cost Rate (ICR) analysis and predetermined fixed rate established for each fiscal year

2. **Audits and Audit Preparation**: Preparation for annual financial audits in compliance with OMB Circulars A-87 and A-133, and others as appropriate.

   Work Product: Annual Financial Audit for each fiscal year meeting the requirements of OMB Circulars A-97 and A-133 and submitted through the federal clearinghouse.

Task 102 — MPO Administration

Objective: To provide for the development of the MPO UPWP and Prospectus, general administrative and clerical services, and coordination of efforts with other agencies supporting the timely completion of UPWP tasks.

Proposed Activities & Products:

1. **Development of Unified Planning Work Program:** The development, implementation, and administration of the MPO Unified Planning Work Program (UPWP). Occasionally changes to the UPWP are required to adjust the document to fit unanticipated needs or shifting priorities. This can be a minor budget adjustment, movement of funding/resources from one category to another, or adding/removing of work tasks. Minor revisions may occur multiple times over the course of the UPWP with larger modifications or amendment processed much less frequently each cycle.

   Work Product: UPWP for Fiscal Years 2016-2017

   Work Product: Minor revisions, modifications, and amendments to the UPWP for Fiscal Years 2016-2017 (as Needed)

2. **UPWP Administration:** General administrative tasks relevant to the fulfillment of the FY 2014-2015 MPO Unified Planning Work Program and to ensure compliance with federal and state regulations. This includes completion of timesheets and monthly work program reports, attendance at staff meetings, attendance at coordination meetings with NHDOT and other agencies, and other administrative tasks.

   Work Product: Monthly Work Program Reports and other required reports.

   Work Product: Completion of employee timesheets

3. **Contract Management:** Tasks related to the conduct of the UPWP contract and any related sub-contracts and agreements and related procurement process. Includes meetings with NH DOT to discuss UPWP contracts, maintenance of the DBE program and goals, and Title VI implementation.

   Work Product: DBE Program and goal analysis

   Work Product: RPC internal procurement guidelines, model RPF, RFQ, and third party contract.

4. **MPO Prospectus Updates:** Updates to the MPO Prospectus document which has three functions; establish the federally mandated "3C" transportation planning process, defines the roles and responsibilities of the various Federal, State, Regional, and local agencies involved in the MPO, and it documents the interagency agreements between involved agencies. A significant update was made to incorporate MAP-21 and 2010 Census changes in 2014-2015; minimal work

envisioned for 2016-2017 however some changes to the TIP/STIP Amendment procedures are being discussed and will be incorporated if implemented.

Work Product: Amendments to the MPO Prospectus (as needed)

Task 103 — Staff Training

Objective: To provide for development of staff skills through attendance at transportation related workshops, seminars, and conferences.

Proposed Activities and Products:

1. **Conferences, Seminars, and Workshops:** Continued training of MPO planning staff through attendance at transportation related conferences, workshops, and seminars. Emphasis will continue to be placed on travel demand modeling/scenario planning, highway capacity, and traffic impact analysis and land use/transportation interrelations, and climate change and adaptation planning. Attending at least one national transportation conference each year such as the Transportation Research Board (TRB), Association of Metropolitan Planning Organizations and/or National Association of Regional Councils (NARC) national transportation planning conferences will be emphasized. Attendance at other conferences and/or training workshops with content relevant to transportation planning may include the American Planning Association (APA), Northern New England Chapter of the APA (NNECAPA), Urban and Regional Information Systems Association (URISA), Community Transportation Association of America (CTAA), New England Bicycle and Pedestrian Conference, and the Pro-bike/Pro-walk Conference.

   Work Product: Staff trained on various topics; attendance and report to TAC and Policy Committees as appropriate on conferences.

   Work Product: Attendance at AMPO, TRB or other national transportation related conference.

2. **Model/Software Training:** Continued specialized staff training in the theory and application of travel demand modeling as well as the specific workings of the MPO regional Travel Demand Model through the MPO model Consultant or through Caliper Software. Training in other specialized software relevant to the business of the MPO such as the EPA MOVES model, Highway Capacity Software, modelling, scenario planning, or others may also be included as opportunities arise.

   Work Product: Staff trained on regional travel demand modeling and the MPO model.

   Work Product: Staff trained on other transportation analysis software programs.

Task 104 — Not Used

Task 105 — Performance Reporting

Objective: To measure the performance of the MPO in terms of completing efforts listed in the UPWP. This takes the form of the mid-contract UPWP progress reviews completed just after the first year of the two year UPWP, FHWA/FTA Planning Reviews which occur every four years, and the UPWP Performance Report completed at the end of each contract.

Proposed Activities & Products:

1. **UPWP Performance Report:** The MPO UPWP performance report provides an assessment of tasks completed and progress made on efforts undertaken during the previous UPWP contract. This document also includes an explanation of tasks not completed or carried over to the next UPWP. The materials utilized to prepare for the mid-term progress review will be utilized as the Performance Report for the first half of the UPWP contract (Year 1).

   Work Product: MPO UPWP Performance Reports

2. **Planning, Billing, and Progress Reviews:** Meet with NHDOT, FHWA, and FTA to discuss progress on the current UPWP and any ongoing issues and concerns with work to date.

   Work Product: Mid-term UPWP progress review meeting with NHDOT (~June, 2016)

   Work Product: Planning Review conducted by FHWA/FTA every 4 years (next in January, 2017)

   Work Product: FHWA/FTA Billing Review when required.

Category 200: Policy and Planning

Purpose: Provide for the development and update of the Rockingham MPO Long Range Transportation Plan and other guiding documents and reports produced for the region. Also includes the conduct of special studies and projects such as updates to transportation and related chapters of the RPC Regional Master Plan, the initiation of corridor monitoring committees, and participation other relevant statewide and regional planning efforts.

Task 201 —State Ten Year Plan

Objective: Participation in the State Ten Year Plan development, GACIT public hearings, and other tasks related to the adoption of the Ten Year Plan.

Proposed Activities and Products:

1. **GACIT Hearings and Ten Year Plan Process:** Participation in the hearings and efforts of the Governor's Advisory Council on Intermodal Transportation related to the adoption of the State Ten Year Plan. This also includes comments/response to the draft Ten Year Plan and development of a list of priority projects that the MPO recommends be added to the Ten Year Plan.

   Work Product: Priority project listing for submittal to NH DOT for addition to the Ten Year Plan (Generally April of odd numbered years)

   Work Product: Comments/Responses to Draft State Ten Year Plan

   Work Product: Participation in GACIT Hearings & Ten Year Plan process (September-October of odd numbered years)

Task 202 — Land Use and Sustainability

Objective: Work related to the role of the transportation system in relation to climate change, livability, overall sustainability, and includes activities that involve the nexus between land use and transportation. RPC will work to implement appropriate transportation, land use, livability, and climate change recommendations identified in the newly adopted RPC Regional Master Plan.

Proposed Activities and Products:

1. **Natural Resources Coordination Studies/Projects**:

   - **Southeast Watershed Alliance:** The Southeast Watershed Alliance was formed to create better municipal, inter-municipal, and regional planning and coordination relative to wastewater and water quality, especially non-point source and stormwater management. The intent is to establish a regional framework for coastal watershed communities to plan implement, and invest in wastewater and stormwater, non-point source controls and integrated management approaches that protect the water quality, natural hydrology, and habitats of the state's coastal resources and associated waters. RPC staff will continue participation in the SWA and provide technical assistance regarding stormwater management and non-point source pollution, Within the SWA is the Stormwater Coalition which assists communities in meeting Phase II of the National Pollutant Discharge Elimination System Federal Stormwater Regulations and the Municipal Separate Storm Sewer System (MS4) requirements which for New Hampshire communities is primarily concerned with managing roadway drainage and runoff.

     Work Product: Participation & technical assistance to Southeast watershed alliance and the Stormwater Coalition, especially relating to managing runoff and non-point source pollution and related MS4 requirements pertaining to roads, parking facilities and drainage facilities.

2. **Planning and Environmental Linkages**: Through the development of a project specific Long Range Transportation Plan, the MPO is ideally situated to incorporate a collaborative and integrated approach to the planning and project development process in the region. By better linking environmental, community, and economic goals more environmentally sensitive transportation projects can be designed that will enhance conservation efforts, improve relationships with resources agencies, and reduce duplication of effort during the NEPA review process.

   Work Product: Development of integrated system level planning activities that can aid in linking transportation and conservation planning

   Work Product: Consultation with Resource Agencies regarding Long Range Transportation Plan consideration of natural, historic, and cultural resources.

   Work Product: Incorporating Eco-logical principles of infrastructure planning and design into the MPO Long Range Transportation Plan and project development efforts.

   Work Product: Integration of Ecosystems approach to planning to better link transportation planning with the activities of resource agencies, land management agencies, and local planning efforts..

3. **Climate Change Initiatives:** Incorporating consideration of climate change mitigation and adaptation into the MPO Planning Process. In cooperation with other agencies, participation in studies, working groups, and other efforts to understand the vulnerability of the region to climate change, to understand the effects of climate change, and help communities mitigate negative consequences.

   - **Coastal Adaptation Workgroup (CAW):** RPC Staff will continue to participate in the Coastal Adaptation Workgroup which assists New Hampshire Coastal communities with training and education in preparing for natural hazard and climate change impacts. The goal of CAW is to help coastal communities develop and implement adaptation strategies through training, education, technical assistance, and outreach. Projected sea level rise, increased storm activity and severity will impact the transportation system of seacoast communities. RPC staff needs to have a full understanding to provide support via transportation planning and project recommendations as much transportation network of the RPC region is susceptible to impacts from sea level rise and increased storm activity. This information is utilized in both the development of the Long Range Transportation Plan and the project selection process for the Plan and the Ten Year Plan.

     Work Product: Participation in approximately 10 meetings per year of the Coastal Adaptation Workgroup.

   - **HSEM Hazard Mitigation Planning**: A grant from FEMA will produce a regional vulnerability assessment report and map set for NH coastal communities and develop a model Coastal Flood, Hazards and Adaptation Chapter to be incorporated into coastal community Hazard Mitigation Plans.

     Work Product: Incorporate Hazard Mitigation recommendations into Long

Range Transportation Plan and into other transportation planning activities.

4. **Coastal Risks and Hazards Commission [NHDES Coastal Program]:** RPC staff will continue to participate and provide technical assistance to the legislatively designated Coastal Risks and Hazards Commission. This group is focused on research, education, and community outreach to assist communities (and agencies) in preparing for impacts due to severe coastal flooding from the combination of 100-year scale flood events, storm surge, and sea level rise. Transportation is one of several types of infrastructure threatened and calls for similar approaches in preparation. Participation in this effort is also supported by a Coastal Zone Program grant (See Section 5.0)

   Work Product: Participation in CRHC meetings, development and review of documents and other work tasks associated with promoting the implementation of initiatives to address coastal hazards.

Task 203 — Transportation Planners Collaborative

Objective: Participation in the Transportation Planners Collaborative and improved communication and cooperation between and among transportation planning partners in New Hampshire.

Proposed Activities and Products:

1. **Transportation Planning Collaborative**: A quarterly meeting of NH transportation planners to foster improved communication between the NHDOT and RPCs/MPOs.

   Work Product: Participation in quarterly Transportation Collaborative Meetings and organization of meeting agenda approximately once per year.

Task 204 — Interagency Consultation

Objective: Coordination of activities and efforts with adjacent MPOs, State Agencies, and Federal planning partners is an important activity that reduces duplication of effort and ensures that issues of common concern are addressed.

Proposed Activities and Products:

1. **Interagency Consultation:** Monthly interagency consultation conference calls and other meetings or communication with FHWA, NHDOT, MPOs and resource agencies to address TIP,

Long Range Plan, Ten Year Plan, air quality conformity and other aspects of the 3Cs planning process.

Work Product: Participation in monthly Interagency Coordination meetings/conference calls.

Task 205 — Transportation Improvement Program

Objective: To maintain the 2015-2018 Transportation Improvement Program and approve the 2017-2020 Transportation Improvement Program.

Proposed Activities and Products:

1. **MPO Transportation Improvement Program (TIP):** To maintain and amend as necessary the MPO 2015-2018 TIP and prepare the FY 2017-2020 TIP, in cooperation with the State as required under the State's biennial TIP/STIP development schedule, and to conduct other TIP-related activities as needed to continue compliance with 23 CFR Part 450, Subpart C.
   - TIP Preparation: Prepare and adopt the Rockingham Planning Commission TIP, including Air Quality Conformity determination, financial constraint analysis, and a summary of results from prior TIPs. Ensure consistency between the project specific element of the long range transportation plan and regional air quality conformity analysis.
   - Project Development Support: Work with project applicants and NHDOT with application development and project implementation. In addition, staff will participate in TIP committee meetings as requested.
   - Evaluate Regional Project Needs: As part of the TIP and Plan development, conduct an evaluation of regional transportation improvement needs, using input from the Long Range Plan, The Congestion Management Process (CMP), the travel demand model, NHDOT and other parties, and propose projects, or encourage state or local governments to propose projects, as appropriate.

   Work Product: Draft FY2017-2020 Rockingham MPO TIP

   Work Product: Project applications and documentation of implementation activities

   Work Product: Documentation of regional project needs for Plan/TIP updates

2. **TIP Amendments:** Evaluate and process TIP Amendments as needed. Amendments are needed 3-5 times per year.

   Work Product: Approval and documentation of TIP Amendments

   Work Product: Updated TIP project database to reflect amended projects

3. **TIP Administrative Adjustments:** Evaluate and process TIP Administrative Adjustments as needed. In practice administrative adjustments occur on a monthly basis.

   Work Product: Approval and documentation of monthly TIP Administrative Modifications

Task 206 — Performance Based Planning

Objective: To complete all work related to the development and implementation of performance measures and targets in the MPO planning process as required by MAP-21 and subsequent regulations. This includes the continued implementation and maintenance of the Congestion Management Process undertaken to satisfy the requirements of 23 USC § 134.

Proposed Activities and Products:

1. **Performance Measures and Targets**: Performance measures and targets will be developed as part of the implementation of performance-based decision-making with the MPO planning process in coordination with adjoining MPOs, NHDOT, transit agencies, and FHWA/FTA.

   Work Product: Process for development and implementation of regional Performance Measures and Targets.

   Work Product: Initial set of Performance Measures and Targets

2. **Congestion Management Process:** The MPO has a Congestion Management Process (CMP) as a tool for understanding regional traffic congestion and providing information on transportation system performance. A CMP must measure multi-modal transportation system performance, identify the causes of congestion, assess alternative actions, implement cost-effective actions, and evaluate the effectiveness of implemented actions. The RPC approved a corridor-based CMP in 2010 and will be working to implement corridor committees and develop the reports necessary for the program. This includes Interstates 93 and 95, NH Routes 16, 28, 33, 101, and 125, US Route 1 and the US 1 Bypass, and portions of NH 107, 108, and 111. The goal is to develop reports for each CMP corridor (grouping I-93 and NH 28 as well as I-95 and US 1/US 1 Bypass) and update a portion of them each year. A regional report summarizing the corridor reports will be produced annually. The RPC recently became a member of the I-95 Corridor Coalition and are hoping to utilize that resource to aid in the development of the CMP corridor reports and assess congestion issues.

   Work Product: Continue traffic volume and classification data collection as part of RPC traffic count program

   Work Product: Continue travel time studies for each CMP corridor

   Work Product: Establish Corridor Committees

   Work Product: Integrate CMP into Performance Based Planning efforts

3. **Performance Reporting:** Development and implementation of reports and other products to relate performance measures and progress towards targets to stakeholders and the general public. This includes not only the reports related to the Congestion Management Process, but also the Annual List of Obligated Projects and any other required reporting from the implementation of performance based planning.

   Work Product: Annual List of Obligated Projects

   Work Product: Congestion Management Process Reports

   Work Product: Other performance based planning reports as required

Task 207 — Intelligent Transportation Systems (ITS) and Incident Management Systems (IMS)

Objective: Maintain the regional ITS architecture developed in cooperation with SRPC. The ITS Architecture and Strategic Plan were updated in 2012 and no significant work is anticipated with these documents during this UPWP. This task also includes participation in Incident Management System (IMS) efforts in the region such as that underway for the Newington-Dover Turnpike and through Southern Maine Planning and Development Commission (SMPDC) for the I-95 corridor in Maine.

Proposed Activities and Products:

1. **Regional Intelligent Transportation Systems (ITS) Architecture:** Maintenance and any updates of the regional ITS architecture for the Strafford and Rockingham MPOs.

   Work Product: Updates to the Regional ITS Architecture as needed

2. **Incident Management Systems (IMS):** Participation in incident management and response planning efforts in and adjacent to the region as necessary.

   Work Product: Participation in Newington-Dover and I-93 Incident Management Systems

   Work Product: Participation in the Incident Management System for the I-95 corridor

Task 208 — Regional Master Plan

Objective: To complete work related to the development of the Transportation Chapter and other related aspects of the Regional Master Plan. This document was recently updated and minimal work is anticipated during the 2016-2017 UPWP for updates.

1. **Updated Regional Master Plan Transportation Related Chapters:** Updates, as necessary to the Transportation Chapter of the Regional Master Plan and other related aspects of the Regional

Master Plan such as Scenario Planning.

Work Product: Updated Transportation Chapter of Regional Master Plan (as necessary)

Work Product: Updated Scenario Planning Chapter of Regional Master Plan (as necessary)

Work Product: Updates to transportation system related chapters of the Regional Master Plan (as necessary)

Task 209 — Air Quality Conformity

Objective: To complete work related to satisfying the requirements of the Clean Air Act Section 176(c), 40 USC § 93, and other policy documents from FHWA and EPA relating to air quality conformity. As of July 20th, 2013, the region was reclassified as an attainment area (Maintenance) meaning that regional Conformity Determinations are not necessary with TIP and Plan updates however updates to air quality standards are anticipated to change this in the future.

Proposed Activities and Products:

1. **Air Quality Conformity:** The MPO will continue to assure that the Transportation Plan and Transportation Improvement Program are consistent with the State Implementation Plan for the Southern NH Maintenance Area, as re-classified under the 8-hour Ozone standard in July, 2012. This will be accomplished in part by continuing to test potential air quality impacts of the transportation plan through use of the travel demand model, and by continuing to work with NHDES and NHDOT to develop policies that help maintain air quality attainment. The MPO staff will continue to facilitate the presentation of air-quality related information through MPO meetings, attend meetings of federal and state officials to acquire and share information about transportation planning, project selection and air quality conformity.

   Work Product: Air Quality Conformity Analysis for TIP/Plan and amendments as required.

Task 210 — Long Range Transportation Plan

Objective: To develop and maintain the Rockingham MPO Long Range Transportation Plan and related polices that are consistent with the requirements of 23 CFR Part 450, Subpart C.

Proposed Activities and Products:

1. **Transportation Plan Update:** Carry out the update of the Rockingham MPO Transportation Plan

in conjunction with development of the Transportation Improvement Program. Work will be focused in several areas: (1) enhanced treatment for bike, pedestrian, and transit components of the transportation system; (2) development of additional project details for transportation projects; (3) full integration of the statewide project selection criteria and process; (4) integration of the Congestion Management Process into the establishment of priority projects, (5) soliciting communities and agencies for any unidentified transportation issues and projects in the region, (6) enhanced treatment for freight and goods movement as a component of the transportation system, (7) integration of a regional climate change vulnerability analysis, especially relating to transportation infrastructure and services. In conjunction with the Granite State Futures grant the MPO will also be working to incorporate livability and sustainability principles into the Plan and expand the public involvement to better capture public input to the process. Finally, the RPC is also working on a number of projects related to environment, water quality and stormwater management, climate change, and adaption planning. Staff will be working to incorporate the outcomes of those projects into the MPO LRTP through an expanded discussion of land use and environmental impacts as well as discussions of infrastructure vulnerability to natural hazards. Major Components of the Long Range Plan include the following:

- Livability/Sustainability: Integrate livability principles into the Long Range Plan to encourage expanded transportation choices, sustainable economic and land use development patterns, and leverage existing investments in infrastructure and communities.
- Fiscal Constraint Analysis: Prepare an analysis of projected revenues and expenditures by year for the region in cooperation with NHDOT and other NH MPOs. This will include developing a budget of funds reasonably expected to be available in the region on which to base project specific recommendations and sequencing.
- Transportation Project Development: A deficiency in the MPO long range planning has been a lack of detailed information available regarding Plan project proposals. This work tasks is intended to refine the project selection process and to supplement project descriptions with additional detail to enable decision-makers to better prioritize.
- Environmental Mitigation, Climate Change, and Adaptation: MAP-21 requires that the MPO include discussions of environmental mitigation within the Long Range Plan. This work task is to continue to revise and refine these discussions, to maintain up-to-date information regarding potential areas of mitigation, and to maintain consistency with State, regional, and local environmental planning efforts. This component of the plan will also be expanded to include discussion of the impacts of climate change on land use and transportation in the region and methods of adapting to the changing environment.
- Population and Employment Projections: Modify the population and employment projections included in the Long Range Plan and Air Quality Conformity Analysis to include 2010 census, American Community Survey, employment information to be consistent with Federal and State estimates for the communities and region. Continue to refine the projection model.
- Project Selection Criteria: Limited financial resources require that a set of criteria be in place to evaluate and prioritize projects. The RPC has project selection criteria developed that need refined to be consistent with the newly developed statewide criteria set and scoring methodology.

- Project Programming Targets: Working with NHDOT and the other MPOs/RPCs to establish transportation project programming budgets
- Freight: Update and expand discussion of freight in the region to reflect the new national emphasis on goods movement. Work with the Statewide Freight Advisory Committee (if established) to ensure that regional freight goals and objectives reflect statewide goals and objectives.

Work Product: Complete major update to the MPO Long Range Plan

Work Product: Amendments to the Long Range Plan (as necessary)

Work Product: Integrated project development process consistent with other NH MPOs and NH DOT.

Work Product: Project selection process and criteria consistent with other NH MPOs and NH DOT.

Task 211 — Bike and Pedestrian Planning

Objective: To develop plans, facilities and programs that encourage bicycling and walking as an alternative to driving and improve bicycle and pedestrian safety using a 5Es approach including Engineering, Encouragement, Education, Enforcement and Evaluation.

Proposed Activities and Products:

1. **General Bicycle/Pedestrian Planning:** Respond to requests from MPO communities for assistance in planning bicycle and pedestrian facilities. Work with NHDOT, other RPCs, the Bike/Walk Alliance of NH, Seacoast Area Bicycle Routes (SABR) and municipal partners to implement a bike/ped traffic counting program. Participate in various initiatives of the NHDOT Bicycle and Pedestrian Technical Advisory Committee (BPTAC), and regional bike/ped advisory committees as needed.

Work Product: Participation in NHDOT BPTAC and update to NH Statewide Bicycle & Pedestrian Plan and Economic Impact Study when they occur.

Work Product: Implement bike and pedestrian traffic counting program including analysis of Strava data (see Section 401 Traffic Count Program)

Work Product: Regional Bicycle Route Plan

2. **Bike/Walk to Work Week:** Continue collaboration with Seacoast Commuter Options, SABR, SRPC and other partners to coordinate regional events for Bike/Walk to Work Day and the statewide Green Commute initiative, including regional bike/ped commuter breakfasts, the Corporate Commuter Challenge and educational events.

Work Product: Bike/Walk to Work/ Green Commute NH Week Preparations

Work Product: Documentation of annual BWWD events

Work Product: Updated BWWD Workplace Coordinator's Guide

3. **Multi-Use Trail Projects:** MPO staff will continue to provide planning and project development assistance to the NH Seacoast Greenway (NHSG) Advisory Committee and corridor communities working to develop their segments of the NHSG. This will include working with the State and corridor communities to complete State acquisition of the Hampton Branch rail corridor between Hampton and Portsmouth, and tasks related to trail development along the full Hampton Branch corridor. MPO staff will also provide assistance as time allows to other trail initiatives in the MPO region.

   Work Product: Project scoping and funding development assistance to communities working to develop their segments of the NHSG

   Work Product: Local Trail Management Agreements between NHDOT and Corridor Communities

CATEGORY 300: PUBLIC INVOLVEMENT AND COORDINATION

Purpose: Provide for the timely implementation of the Rockingham MPO policies and plans through a public process of project evaluation, prioritization, and recommendations for implementation via the MPO Technical Advisory Committee and Policy Committee.

Task 301 — Transportation Advisory Committee

Objective: This task provides for the on-going organizational support of the Transportation Advisory Committee (TAC).

Proposed Activities and Products:

1. **Committee Support:** Continue to provide support to the MPO TAC, including staffing, public notices, mailings, committee education and other tasks. No less than four TAC meetings will be held in each year of the UPWP.

   Work Product: TAC agendas, minutes, memos and related committee information for no less than four meetings.

   Work Product: Educational presentations to the TAC on transportation topics.

Task 302 — Not Used

Task 303 — Public Participation Plan

Objective: To evaluate and maintain the MPO Public Participation Process.

Proposed Activities and Products:

1. **Public Participation Process Review:** Conduct a biennial review of the MPO Public Participation Process, including assessment of needs for outreach to Limited English Proficiency (LEP) groups/populations. Update the Public Participation Process as appropriate including review by NHDOT Office of Federal Compliance.

   Work Product: Revised and updated to the Public Participation Plan

Task 304 — Public Outreach

Objective: To increase public awareness and participation in the transportation planning process and the implementation of plans and projects.

Proposed Activities and Products:

1. **MPO Website Development & Maintenance:** Complete the redesign and expansion of the MPO Website to include current and archived information from TAC and Policy Committee meetings, information on current projects, and current regional data as well as opportunities for member interaction.

   Work Product: Redesigned, expanded MPO website

2. **Media Monitoring:** Monitor traditional and social media coverage of transportation issues; utilize press releases and other media contacts to publicize transportation issues and MPO activities. A Facebook-based advertisement may be utilized to gather public input and generate interest in specific planning efforts.

   Work Product: Documentation of press releases and media stories related to MPO projects.

   Work Product: Use of social media to boost public involvement in the transportation planning process.

   Work Product: Facebook based advertisement.

Task 305 — Policy Committee

Objective: This task provides for on-going organizational support of the MPO Policy committee.

Proposed Activities and Products:

1. **Committee Support:** Continue to provide support to the MPO Policy Committee, including staffing, public notices, mailings, committee education and other tasks. No less than 2 Policy Committee meetings will be held in each year of the UPWP.

   Work Product: MPO agendas, minutes, memos and related committee information for no less than two meetings.

   Work Product: Educational presentations to Policy Committee

Category 400: Plan Support

Purpose: Provide for the collection, analysis and maintenance of relevant data to support the MPO planning process. This includes the development, analysis, & mapping of socioeconomic, land use, environmental, & transportation system data to be used in the Long Range Transportation Plan, corridor studies, the Congestion Management Process, project development & planning, as well as other planning efforts. Also includes activities pertaining to the maintenance and improvement of the travel demand model.

Task 401 — Traffic Count Program

Objective: To collect and analyze traffic data in the MPO Study Area.

Proposed Activities and Products:

1. **Traffic Count Program:** Continue traffic data collection efforts to support NHDOT traffic data needs; assist communities and NHDOT with local technical studies and analysis: We will use outside assistance, as necessary, to effectively complete this program. The majority of the counting program will be completed by outside vendors. Regular data submissions by the vendors will be reviewed, coordinated with and submitted to NH DOT per the terms of the contract. The RPC will maintain in-house capacity and equipment to support traffic studies as needed. In addition, RPC gets requests each year from communities for traffic counts at specific locations that are not part of the regular program. These are handled on a first come-first serve

basis as resources are available. The Traffic Count Program will also be expanded during the biennium to include bicycle and pedestrian counting. This will involve initial identification of major locations for ongoing annual counts, development of bike/ped counting protocol in collaboration with other RPCs and the NHDOT Bike/Ped Transportation Advisory Committee (BPTAC), and a combination of automated and manual counts undertaken with regional partners.

Work Product: Data from up to 160 Traffic Volume Counts supplied to NH DOT as per NHDOT specifications.

Work Product: Data from up to 12 Traffic Classification Counts supplied to NH DOT

Work Product: Data from up to 10 manual Turning Movement Counts supplied to NH DOT

Work Product: Additional traffic counts in response to community requests.

Work Product: Identification of priority locations for ongoing bike/ped traffic volume monitoring, and data from up to 20 manual and automated bike/ped counts at prioritized locations

Task 402 — Road Surface Management Systems

Objective: To collect and analyze road surface condition data within the MPO Study Area and to support local development of Road Surface Management Systems (RSMS). RSMS provides a systematic approach for local officials to gauge current conditions and guide future improvement and investment needs.

Proposed Activities and Products:

1. **<u>Community Road Surface Management Systems</u>**: Activities and staff time devoted to the development and maintenance of road surface condition data for communities, identification of priorities for repair and strategies to best facilitate improvements, general cost estimates, and planning for future maintenance needs. Includes development of improvement and maintenance plans. Efforts will use the SADES data collection system and process.

   Work Product: Road Surface data collected for one RPC community per year

   Work Product: Identification of priority locations and strategies for repair for one community per year.

   Work Product: Development of budgetary plan for one community per year.

Task 403 — Geographic Information Systems

Objective: To collect and analyze transportation, land use, environmental, and socio-economic data relevant to the MPO Study Area and to support data requirements in the development of the Long Range Transportation Plan, the Transportation Improvement Program, the Congestion Management Process, Transportation Conformity analysis, transit planning, population projections, traffic analysis, regional travel demand modeling as well as other transportation planning efforts of the MPO.

Proposed Activities and Products:

2. **Geographic Information Systems**: Activities and staff time devoted to the development and maintenance of transportation focused data layers, including a reasonable share of transportation related layers and those that support transportation planning. This includes the maintenance of data layers, mapping, and spatial analysis as well as response to requests for data, mapping, and analysis of transportation related data.

   - **Zoning and Land Use Layers:** This is a continuation of the town by town updates to the zoning and land use/ land cover layers. Updates are incorporated into the RPC database as information becomes available for all 26 communities. The RPC will continue retrieving the most recent zoning and land use information for each community. Data collection may be in digital form or in hard copy form and will require varying efforts to incorporate the data, both spatial and tabular. This data will be required for the update of the Long Range Transportation Plan and related scenario planning efforts. New aerial photography expected to be completed during 2015 will assist in the update of the land coverage for 2016.

     Work Product: GIS data layers for the RPC Region

     Work Product: Updates to the standard map set of zoning maps for all member communities

     Work Product: Updates to the standard map set of land use and land cover maps for all member communities

     Work Product: Maps and Data as requested

   - **NH DOT Distributed Data:** The RPC will periodically obtain data sets from NH DOT including road and road attribute data, accident crash data, project inventory data, aerial photography and a variety of other data sets. The RPC will obtain and incorporate this data into the RPC database as needed and as it becomes available, In addition, the RPC will work with the NH DOT when possible to streamline the data sharing process. These products will be used for local special requests and local planning support, including town and regional master plans. At times the RPC may supplement this data with information otherwise not collected by the NH DOT by contacting local public safety agencies, and will share results with NH DOT for inclusion in their data.

     Work Product: Crash Data compiled for the Region

Work Product: Analysis of problem areas for Highway Safety Improvement Program (HSIP)

Work Product: RPC Database updates

Work Product: Maps and Data as requested

- **Economic and Demographic Data:** Update and analyze maps depicting employment sites, housing, and major employers for use by the MPO in maintaining housing and employment data for the model; make data available to communities, social services, REDC and other agencies as appropriate. Data collected will be used to assist in ensuring that transportation programs and projects avoid or minimize adverse impacts to low income and minority populations. Also, data can be used to target outreach to Limited English Proficiency (LEP) groups/populations as needed. Utilize 2010 census and 2010 employment data from NH Department of Employment Security to assist in the update and calibration of the land use allocation module of the regional travel demand. Collect and maintain major employer data, unemployment data and related information to assist in assessing employment growth projections. This work will be done in coordination with the regional Comprehensive Economic Development Strategy (CEDS) initiative. This task also includes working with data available from the 2010 Census for the travel demand model, long range planning, and other efforts.

  Work Product: Receive, disseminate and analyze 2010 Census & related data as available.

  Work Product: Update ES202 employment data aggregated to TAZ for Regional Travel Demand Model use.

  Work Product: Updated major employer database for inclusion in Regional Travel Demand Model.

  Work Product: Updated CEDS data tables and economic summaries relating to employment, population, and housing data.

  Work Product: Analysis of ACS Journey to Work/commuting patterns data where possible

- **Resource Layers:** Update and analyze maps and data depicting natural, cultural, historic and other resources. Data and maps will be utilized as inputs into the Long Range Plan, travel demand model, any sustainability/livability initiatives, as well as individual transportation project development efforts.

  Work Product: Updated maps and data sets.

  Work Product: Transportation system vulnerability assessment database

- **Standard Map Set:** Update of the standard set of maps that are produced for all communities within the region for use in planning and resource protection. The content of the maps includes transportation infrastructure, zoning, land use, surface water, stratified drift aquifers, composite tax data, conservation lands, community facilities, soils data, buildout data, and digital orthophotos. Additional maps will be produced dependent upon the data

available.

Work Product: Updated standard map set for each community in the region.

2. **Road Infrastructure Vulnerability Analysis:** Conduct a Vulnerability and Risk Assessment of transportation culvert infrastructure by performing a thorough inventory and analysis of current road culverts/road crossings and report on the current status and conditions of these assets. An element of this assessment will include the evaluation the impact of storm events and future climate change scenarios on the assets. The process for completing this project is to emulate, or follow, FHWA's current Vulnerability and Risk Assessment Conceptual Model and to utilize other studies that have taken place in the region in order to promote consistency of data. Culvert data collected for this effort will be utilizing the SADES program. Half of the communities in the RPC region have been surveyed and the remaining ones will be completed by fall 2016. Analysis of data and final produce production will continue through the remainder of the UPWP

   Work Product: Inventory of stream crossings & culverts for the region expected completion by fall, 2016

   Work Product: Vulnerability analysis of transportation infrastructure to climate change and weather hazards.

Task 404 — Demographics

Objective: To collect and analyze socio-economic and demographic data relevant to the MPO Study Area and to support data requirements in the development of the Long Range Transportation Plan, the Transportation Improvement Program, the Congestion Management Process, Transportation Conformity analysis, transit planning, population projections, traffic analysis, regional travel demand modeling as well as other transportation planning efforts of the MPO.

Proposed Activities and Products:

1. **Population and Employment Projections**: Activities and staff time devoted to the development and maintenance of regional population and employment projections to support the travel demand model and the Long Range Transportation Plan.

   Work Product: Regional population projections

   Work Product: Regional employment projections

2. **Analysis of Census Data:** Activities and staff time devoted to the analysis of Census and other demographic data for transportation planning purposes.

   Work Product: Receive, disseminate and analyze 2010 Census & related data as available.

Work Product: Updated CEDS data tables and economic summaries relating to employment, population, and housing data.

Work Product: Analysis of ACS Journey to Work/commuting patterns data where possible

Task 405 — Equipment and Resources

Objective: The purchase of equipment and transportation planning resources such as books, manuals, and software.

1. **Purchase/Repair Traffic Counting Equipment:** Purchase and repair of traffic counting equipment.

   Work Product: Repaired traffic counting equipment (as needed)

   Work Product: New counting equipment for conducting volume/classification/speed counts on high volume facilities.

2. **Memberships and Subscriptions:** Membership to the Association of Metropolitan Planning Organizations (AMPO) and to the transportation planning component of the National Association of Regional Councils (NARC).

   Work Product: AMPOs membership

   Work Product: NARC transportation planning membership

3. **Transportation Planning Resources:** Purchasing transportation planning resources such as books and manuals like the Highway Capacity Manual, Trip Generation Manuals, and others as needed.

   Work Product: Transportation Planning Resources

4. **Computer Hardware and Software:** Purchase and maintenance of computer hardware and software utilized for transportation planning or used by the transportation planning staff. This includes GIS, travel demand model, and other transportation planning software maintenance agreements.

   Work Product: ArcInfo and ArcView License renewals(ESRI)

   Work Product: TransCAD License (Caliper Corp.)

   Work Product: HCS+ Maintenance (McTrans)

   Work Product: Acquisition of one to two replacement computers

   Work Product: Other transportation planning software purchases/updates as needed.

Task 406 — Travel Demand Modeling

Objective: Continue work on maintaining and improving the capabilities and operation of the RPC/SRPC MPO travel demand model. Utilize model for air quality analysis conformity analysis as needed, for travel demand estimation, land use scenarios and forecasting, estimating the effectiveness of proposed transportation improvement projects and plans, and understanding system efficiency and congestion as a component of the Congestion Management Process.

Proposed Activities and Products:

1. **Model Maintenance, Updates and Enhancements:** The maintenance of the model with Strafford Regional Planning Commission as well as periodic updates and enhancements. The RPC would like to continue to make improvements that simplify and streamline the modeling process as well as enhance its capabilities. Specifically work during this UPW will focus on working with our state and regional planning partners to implement a Household Travel Survey to more closely calibrate the model with local and regional travel patterns. In addition, work will begin on integrating the regional land use buildout model with the MPO Travel Demand Model to provide more dynamic and automated land use assignment to Traffic Analysis Zones

   Work Product: Continued improvements in data efficiency and reduced data redundancy

   Work Product: Enhanced Model capabilities

   Work Product: Household Travel Survey

   Work Product: Modify regional buildout analysis to provide dynamic land use allocation data to the MPO Travel Demand Model.

2. **Travel Demand Forecasting:** Travel demand forecasts for specific transportation plans or projects. Also as part of the Congestion Management Process to identify roadways and intersection that are likely to become significantly congested given forecasted growth and travel patterns. The model may also be used to test land use development and growth scenarios as part of the update to the Long Range Transportation Plan or as part of updates to the Regional Master Plan.

   Work Product: Forecast regional and facility specific traffic levels as requested

   Work Product: Conduct scenario planning exercises for the Long Range Transportation Plan.

CATEGORY 500: TECHNICAL ASSISTANCE AND PLANNING

Purpose: Allows the Rockingham MPO staff to address local transportation issues and concerns by providing direct transportation planning consultation and general technical assistance, project development assistance, and grant funding resources to communities within the MPO study area in response to local needs and requests.

Task 501 — Local and Regional Assistance

Objective: Regional planning projects and technical assistance to communities. This includes scoping and performance of studies, attending community meetings on specific issues or items, review of development impacts for transportation issues.

Proposed Activities and Products:

1. **General Transportation Assistance:** Providing general transportation planning and technical assistance to area communities and other public entities on an as-requested basis and when financially and technically feasible. Occasionally RPC staff will work with other NH MPOs, MPOs from bordering states or other planning partners to address a specific issue or to accomplish a specific task. Past work in this area has included coordination of the Congestion Management Process, and development of common MPO project selection criteria. This task includes attending local Planning Board, Board of Selectmen, and other meetings to discuss or provide input on transportation related topics as requested.

   Work Product: Reports and memoranda related to local assistance as required.

   Work Product: Participation in regional working groups (as needed)

   Work Product: Attendance at local meetings and advisory groups (as needed)

2. **Development Impact Review:** Attend NH DOT scoping meetings, review and comment on land use development proposals and traffic impact studies as requested or as part of the Development of Regional Impacts process.

   Work Product: Comments on Traffic Impact Studies and development proposals as requested

3. **Special Projects Scoping and Development**: Scoping and development of projects under the Special Projects Program (Task 504) as well as the development of any program specific guidelines or materials.

   Work Product: Scope, cost, and timeline for proposed technical assistance projects.

   Work Product: Verification from NH DOT that Technical Assistance Project scopes meet requirements for use of UPWP funds.

Work Product: Development of technical assistance program guidelines and application materials

4. **Complete Streets Policy and Guidance:** Develop a Complete Streets policy for the region and prepare a guidance document for communities to use in implementing their own Complete Streets Policies.

   Work Product: Complete Streets Policy for the RPC MPO region

   Work Product: Complete Streets Guidance for communities

5. **Access Management Manual:** Update the RPC Access Management manual to incorporate the latest "state of the practice" techniques and policies as well as discuss the process for development of an Access Management MOU with NHDOT.

   Work Product: Updated Access Management Manual

6. **Scenic Byway Corridor Management Plan Implementation:** During FY2014-2015 RPC has worked with regional corridor committees to develop Corridor Management Plans for the NH Coastal Scenic Byway (traversing Seabrook, Hampton, North Hampton, Rye, New Castle and Portsmouth) and the Robert Frost/Stagecoach Scenic Byway (traversing Atkinson, Hampstead, Chester, Auburn, and Derry). Going forward, efforts will shift to supporting and providing technical assistance to the Corridor Committees in implementing CMP recommendations.

   Work Product: Support and technical assistance to Corridor Committees.

7. **Safe Routes to School:** MPO staff will continue to provide assistance to MPO communities developing Safe Routes to School programs. Staff will also provide assistance to BWANH in implementation within the region of its SRTS-funded, school-based bicycle safety education initiative.

   Work Product: Community planning assistance and support as requested

8. **RPC Executive Directors Meetings**: Monthly meetings of the RPC Executive Directors with NH DOT and other State and Federal agencies to discuss transportation planning and other related issues.

   Work Product: Participation of Transportation Staff in monthly RPC Director Meetings regarding UPWP or other transportation related topics

Task 502 — Statewide Assistance

Objective: Provide resources to support NH DOT in the development of corridor studies, feasibility studies, project development, and other transportation studies and projects as requested.

Proposed Activities and Products:

1. **Project Implementation & Monitoring:** Monitor all Projects included in the State of NH Ten Year Program or through District VI; respond to state and local inquiries regarding project status, potential impacts etc.; attend design review meetings, local officials meetings and public informational meetings or hearings as needed.

   Work Product: Input to NHDOT Design Bureau regarding project implementation

   Work Product: Technical memos regarding implementation activities.

   Work Product: Written comments relating to project development and preliminary design

2. **HSIP Project Implementation:** The Highway Safety Improvement Program process in NH requires staff to examine problem locations around the region for crash history and determine candidates for short-term improvements, road safety assessments, or other action.

   Work Product: Analysis of accident locations in the region.

   Work Product: Input into the HSIP project selection process.

   Work Product: Participation on HSIP Committee

4. **Statewide Freight Plan/Planning:** Support NHDOT efforts to develop a Statewide Freight Plan as required by MAP-21.

   Work Product: Participation in statewide Freight Advisory Committee

   Work Product: Comment on draft statewide Freight Plan

Task 503 — Local Project Administration (LPA) Programs

Objective: To aid communities and regional agencies through assistance with the administration and implementation of locally managed projects.

Proposed Activities and Products:

1. **Transportation Alternatives Program:** Work with applicants for Transportation Alternatives funds (TA) to provide project development assistance; evaluate and rank project applications; assist applicants as needed with statewide selection process; monitor project implementation. In addition, staff will participate in any TA subcategory Advisory Committee meetings as requested.

   Work Product: Regional TA application and evaluation process

   Work Product: Documentation of project implementation work

Work Product: Assistance with project implementation and management as necessary

2. **Congestion Mitigation & Air Quality Program:** Work with applicants for Congestion Mitigation & Air Quality (CMAQ) to provide project development assistance; evaluate and rank project applications including air quality analyses; assist applicants as needed with statewide selection process; monitor project implementation. In addition, staff will participate in CMAQ Advisory Committee meetings as needed.

   Work Product: Regional CMAQ application and evaluation process

   Work Product: Documentation of project implementation work

   Work Product: Assistance with project management and implementation as necessary

Task 504 — Special Projects

Objective: To perform studies and develop reports for individual communities. This includes such things as performing small corridor or intersection studies, updating of transportation related community master plan and regional master plan chapters, as well as development of regional guidance documents.

Proposed Activities and Products:

1. **Studies:** To provide grant and technical assistance funding within the UPWP to provide local communities resources to carry out small community-specific studies connecting transportation, land use, and natural resources. Eligible projects will include access management studies, traffic calming studies, traffic and parking studies; innovative zoning studies, future land use studies, scenario planning, or other planning efforts that foster improved integration and coordination between transportation and land use within a community.

   - **Traffic Studies:** To perform traffic volume, turning movement, vehicle classification, or other traffic analysis as requested by communities and perform analysis on that data.
   - **Parking Studies:** To perform small studies of parking conditions and/or needs as requested by communities, including analysis.
   - **Access Management Plans:** Assist communities with the development of Access Management plans and policies for a corridor or the entire community.
   - **Access Management MOU Development:** Assist in the development and execution of Access Management MOUs between NHDOT District VI and communities.
   - **Community Master Plan Chapters:** Updates to transportation related chapters of the community Master Plans of the communities in the region.

   Work Product: Completed Studies to be determined

Task 505 — Regional Coordinating Councils

Objective: Support and participate in the operation of the two Regional Coordinating Councils serving communities in the MPO Region.

Proposed Activities and Products:

1. **RCC Support – Southeast Region (ACT):** Continue to participate in ACT, the Regional Coordinating Council for community transportation (RCC) for the Southeast NH area, including the eastern portion of the RPC region. Assistance will include development of funding proposals, development of coordination Operating Agreements with provider agencies, and planning for expansion of volunteer driver program coverage in central Rockingham County.

   Work Product: Expanded and diversified funding for ACT service

   Work Product: Implement service improvements identified through RCC strategic planning, including development of a volunteer driver program covering central Rockingham County.

2. **RCC Support – Derry-Salem Region:** Continue to collaborate with SNHPC on management of the Greater Derry-Salem Regional Coordinating Council for Community Transportation (RCC).

   Work Product: Expanded and diversified funding for service improvements in region

   Work Product: Implement service improvements identified through RCC strategic planning activities, including taxi voucher and expanded volunteer driver programs

3. **Coordinated Public Transit/HHS Transportation Plans:** Work with COAST, CART, Wildcat Transit, neighboring planning commissions and appropriate Human Service Agency staff to incorporate any needed minor updates to the two Coordinated Public Transit & Human Services Transportation Plans that cover the MPO study area. These include the plan for the Greater Derry-Salem RCC covering the western portion of the RPC region and updated during 2010-2011; and the plan for the Southeast NH RCC, covering the eastern portion of the RPC region, which was last updated in early 2012.

Task 506 — Transit and TDM Planning

Objective: Promote the incremental development of public transportation and transportation demand management services in the MPO area by working with existing transit agencies, other public and private transit operators, and regional Transportation Management Associations (TMAs).

Proposed Activities and Products:

1. **Technical Assistance to COAST:** Continue to serve on the COAST board and Executive Committee; collaborate with COAST and Strafford MPO staff on biennial rider surveys and updates to the COAST funding formula. Work with COAST as part of the Alliance for Community Transportation, a collaborative of municipalities and provider agencies working to establish a regional transit brokerage serving the Greater Seacoast.

   Work Product: COAST ridership survey [COAST]

   Work Product: Funding formula maintenance and update

2. **Technical Assistance to CART:** Continue to serve on the CART board and Executive Committee. Provide technical assistance with multiple projects during the biennium. Anticipated projects include development of an updated five year financial plan for the agency; planning for new demand-responsive routes replacing some current open demand response service; analyses of ridership patterns to develop additional fixed routes or demand-responsive routes; assistance in developing operating agreements with other transit providers in the region; assistance with resource development including negotiation for regional split of FTA Urban Formula funds, grant writing and serving as a liaison with RPC member communities.

   Work Product: Analysis of potential fixed/demand responsive routes

   Work Product: Diversified and expanded CART funding base.

   Work Product: Five Year Financial Plan

3. **Technical Assistance to Transportation Assistance for Seacoast Citizens (TASC):** Continue to serve on the board for the Transportation Assistance for Seacoast Citizens (TASC) volunteer driver program, and provide assistance with funding development and operations planning. Also work with TASC and ACT to expand the geographic scope of TASC and integrate it into the ACT regional transit brokerage.

   Work Product: Expanded municipal and private sector funding [TASC]

4. **Statewide Community Transit Coordination:** Participate in statewide work on transit development through the NH Transit Association and the State Coordinating Council for Community Transportation (SCC).

   Work Product: Participation in NHTA and SCC in support of regional transit and coordination initiatives

   Work Product: Participation in Transportation Solutions NH and other collaborative statewide efforts to expand emphasis on alternative modes in State transportation policy

5. **TDM/TMA Support:** Collaborate with the Strafford MPO, COAST, Pease Development Authority and municipalities in the revitalization of the Seacoast Commuter Options regional

Transportation Management Association (TMA). Continue to participate in the I-93 TDM Working Group and relevant subcommittee as necessary. Participate as time allows in statewide TDM/TMA collaboration efforts.

Work Product: Documentation of TMA support

6. **<u>Regional Transit Planning and Initiatives</u>:** Staff will continue to participate in the Downeaster Station Communities Advisory Committee in Exeter, and work with station communities, NHDOT and NNEPRA to pursue enhancements to Downeaster service. Work on this task includes any follow-up from the recently completed NH 101/ US 1 Interchange Study in Hampton that included a study and preliminary design for an intermodal transit center.

Work Product: Exeter Downeaster Station Committee Participation

Work Product: Hampton Intermodal Transit Center Study follow-up

5.0 OTHER PLANNING ACTIVITIES

In addition to the MPO transportation planning work, there are a number of other planning efforts by both the Rockingham Planning Commission and other planning agencies in the region. Some of these are transportation planning focused, while others are concentrated on land use or environmental planning. Most are multi-disciplinary in nature and involve some consideration of the transportation system of the area as part of the discussion, issues of concern, or recommendations. This section of the UPWP identifies those projects and programs.

TRANSPORTATION PLANNING

As indicated in the introduction of this Unified Planning Work Program, the "unified" aspect of the document is intended to encompass all MPO transportation planning activities that are foreseen in the region, regardless of funding source or implementing agency. While we cannot be certain that we are aware of all transportation planning activities that will take place in the program period, we do identify all those that we are aware of in which the MPO has a stakeholder or participant role. These are summarized below with funding sources and amount, to the extent they are known, included in tables with each description.

Purchase of Service: For State Fiscal years 2016-2017 RPC has agreed to take on the role of Lead Agency for FTA Section 5310 Purchase of Service funding for the Southeast NH Regional Coordination Council for Community Transportation (Region 10 RCC). The Planning Commission will serve as the grant manager for these FTA funds to be used to purchase transportation services the elderly and individuals with disabilities in the RCC service area, which includes the SRPC region and the eastern portion of the RPC region. Transportation services will be purchased from COAST as well as human service transportation providers meeting service standards adopted by the RCC consistent with FTA requirements. Funds are made available to the region through NHDOT. This role has similarly been taken on by SNHPC and NRPC for the RCCs in their regions. Section 5310 POS funds available to the region for the two year period total $325,456, and up to 5% may be billed for administrative expenses, classified as Mobility Management. Assuming full utilization of the grant funding for purchase of service, the administrative fee to RPC will be $16,273 over the two year grant period.

COAST Transit Planning [COAST]: COAST will undertake the following activities using FTA Section 5307 Funds, and may utilize both COAST staff resources and /or outside consulting assistance:

- Provide assistance with planning and mobility management to ACT, the Regional Coordinating Council (RCC) for the Southeast NH region.
- Participate in updates as needed to the SAFETEA-LU coordinated public transit/human service transportation plan for the region.
- Prepare study of the economic impacts of COAST transit service in the region.

- Continue ongoing general and comprehensive transit planning.
- Conduct biennial system review.

COAST 5307 Planning Funds	FY 2016	FY 2017
FTA 5307	$ 80,000	$ 80,000
Local Match (COAST)	$ 20,000	$ 20,000
Total:	$ 100,000	$ 100,000

CART 5307 Planning Funds (Est)	FY 2016	FY 2017
FTA 5307	$ 5,200	$ 5,200
Local Match (CART)	$ 1,300	$ 1,300
Total:	$ 6,500	$ 6,500

CART Transit Planning [CART]: CART will undertake the following activities using FTA Section 5307 Funds, and may utilize both CART staff resources and /or outside consulting assistance:

- Provide assistance with planning in the development of a Regional Coordinating Council
- (RCC) for community transportation for the Greater Derry-Salem region.
- Participate in updates as needed to the SAFETEA-LU locally coordinated public transit/human service transportation plan for the region.
- Preparation of Financial Plan for CART
- Conduct ridership analyses to identify potential new fixed and demand-responsive route services
- Implement new Derry-Salem fixed route service, and new demand-responsive routes as identified
- Continue ongoing general and comprehensive transit planning.
- Conduct biennial system review.

Hampton Beach Master Plan Update (TCSP Grant): The Hampton Beach Area Commission was awarded a TCSP Grant for $300,000 to update the Beach Master Plan.

Related Land Use and Environmental Planning Activities

The RPC is involved with many land use and environmental planning activities that are interconnected with transportation issues. While transportation isn't the necessarily the focus of these efforts, it is part of the discussion. Transportation planning for the MPO makes up approximately 56% of the RPC annual budget with the remainder of staff time and resources going to regional and local land use and environmental planning efforts. A general description of this

Anticipated RPC Budget FY 16 and FY 17

Funding Source	FY16 Budget	% of Budget	FY17 Budget	% of Budget
Member Dues	$134,783	14%	$134,783	14%
Circuit Rider & CZP	$123,106	13%	$123,106	13%
Local Contracts	$21,000	2%	$21,000	2%
Transportation Planning	548,000	56%	548,000	56%
State & Direct Federal Funding	$134,047	14%	$134,047	14%
Other/Misc	$15,700	2%	$15,700	2%
Total	$1,317,300	100%	$1,391,856	100%

work is included below along with general funding sources and amounts where known.

Comprehensive Economic Development Strategy [Rockingham Economic Development Corporation]: Funded through the US Department of Commerce's Economic Development Administration, The Rockingham Economic Development Corporation (www.redc.com) annually updates the Comprehensive Economic Development Strategy (CEDS) in support of on-going regional economic development planning efforts. RPC provides support in updating demographic and economic data and associated analysis, providing information on proposed transportation projects and improvement needs, and updating goals, objectives and recommendations.

HSEM Hazard Mitigation Planning Grant: This grant from FEMA will produce a regional vulnerability assessment report and map set for NH coastal communities, develop a model Coastal Flood, Hazards and Adaptation Chapter to be incorporated into coastal community Hazard Mitigation Plans, tailor recommendations to update Local Hazard Mitigation Plans in each eligible coastal community to specifically incorporate the vulnerability assessment, and incorporate specific recommendations for mitigation and adaptation.

FEMA HSEM Funds	FY 2016
Allocation	$ 20,000

NH Coastal Adaptation Workgroup (NH CAW)[Multiple Agencies]: Formed in January 2010 as an Ad Hoc Collaboration, NH CAW currently involves 19 agencies, organizations, municipalities, and NGOs with 28+ individual members. NH CAW partnerships have received project grants represent nearly $2.5 M in assets that enables NH CAW to work with 25+ communities with 3 of the projects providing specific adaptation related education and technical assistance.

Circuit Rider Planning Services and Technical Assistance: The RPC provides part-time professional land use planning services to the Planning Boards of ten member communities and technical assistance to all twenty six communities as requested. General duties include assistance in developing revisions to community Zoning Ordinance, Site Review, and Subdivision Regulations, review of development proposals, and assistance with the development of Capital Improvement Programs (CIPs). These services are paid through RPC dues and contracts with individual communities for circuit rider services. Tasks such as updating community master plan chapters are also undertaken, often under a separate contract.

Developments of Regional Impact (DRI): The RPC conducts reviews of development of regional impact to assist in fulfilling obligations under RSA 36:58. This provides for convening the RPC DRI committee and supporting it as necessary, preparation of written responses and attendance at local land use board meeting concerning developments of regional impact as required. This program is funded through the NH Office of Energy and Planning (OEP) Targeted Block Grant (TBG) program.

New Hampshire Coastal Program Technical Assistance Grants: This program provides funding to the regional planning commission's that have coastal communities to engage in planning projects that implement the coastal resource management goals of the NH Coastal Program. Any planning projects that can be accomplished by RPC staff are eligible. Examples include community master planning, natural resources inventories, land use and natural resources mapping, and adaptation

planning. This program is funded by the US Dept. of Commerce/NOAA funds provided through NHDES/NH Coastal Program.

Emergency Management/ Hazard Mitigation Planning Grants: This program provides funding to accomplish the preparation and up-dating of local all-hazard mitigation plans. These plans document all the hazards existing in communities and serve as prerequisite documents for many funding programs offered by the NH Office of homeland Security and emergency management. Some examples of eligible projects that fall under most of the grant programs listed above include property acquisition, structural demolition and relocation, structural elevation, mitigation reconstruction, dry flood proofing of historic residential structures, dry flood proofing of non-residential structures, minor localized flood reduction projects, structural retrofitting of existing buildings, non-structural retrofitting of existing buildings and facilities, safe room construction, infrastructure retrofits, soil stabilization and wildfire mitigation. These programs are funded through the NH Office of Homeland Security via the following emergency management and hazard mitigation planning grants: Hazard mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), Repetitive Flood Claims (RFC), and Severe Repetitive Loss (SRL). In addition, Pre-Disaster Mitigation (PDM) grants funded by FEMA through the New Hampshire Department of Homeland Security and Emergency Management provide the resources for the RPC to conduct Hazard Mitigation Plan updates for member communities.

Climate Ready Culverts and Coastal Communities: Vulnerability Assessment for Inland Coastal Communities [NH Coastal Program, UNH Stormwater Center, Rockingham Planning Commission, Strafford Planning Commission – $190,000]: New Hampshire coastal municipalities are confronted by land use and hazard management concerns that include extreme weather events, storm surges, flooding, coastal erosion, and damage to key assets. These issues are only intensified by the observed recent increases in the frequency and intensity of extreme storm events and increases in sea level. Increased flooding has the potential to place coastal populations at risk, threaten infrastructure, intensify coastal hazards, and ultimately damage homes, businesses, public infrastructure, recreation areas, public space, coastal wetlands and salt marsh. In recent years, new technical tools such (LiDAR, report on impacts of climate change on coastal flooding, 2014 National Climate Assessment, and Northeast Region Climate Data Center extreme precipitation) have been acquired for the region to address how climate may change in the future, however few assessments have been conducted that quantify and map where flooding may occur and what may be impacted. This project will assess climate change impacts to natural systems and the built environment for ten coastal municipalities (5 in the RPC region: Newfields, Exeter, Stratham, Greenland, and Newington). Results of the assessment will help municipalities apply climate impact data directly into programmatic changes such as facilities (infrastructure upgrades and priorities), permit processes, codes, and regulations. In addition, the project results will be built into a developing web-based platform (NH Coastal Viewer).The vulnerability assessment will be completed for ten coastal New Hampshire communities in two planning regions. Municipalities in the Rockingham Planning Commission region are Newfields, Exeter, Stratham, Greenland and Newington. Municipalities in the Strafford Regional Planning Commission region are Rollinsford, Madbury, Dover, Newmarket, and Durham. The RPC has $30,000 in grant funding to accomplish specific tasks in this analysis and will be leveraging $5,000 of UPWP funds toward the project.

6.0 FUNDING SOURCES, COST DISTRIBUTION, AND TASK SCHEDULING

The Rockingham MPO is funded by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) of the U.S. Department of Transportation, the New Hampshire Department of Transportation (NHDOT), and local matching revenues from the RPC. Overall, 90% of UPWP funding is provided by a combination of metropolitan planning program grants from the Federal Highway Administration ('PL'), Federal Transit Administration ('Section 5303' converted to PL funds), and State Planning and Research (SPR)program funds. The matching funds are provided by the RPC supplemented by Turnpike Toll Credits from NHDOT that allow the effective 90/10 match instead of the usual 80/20. **Table 1,** shows personnel and non-personnel expense anticipated for the 2016-2017 UPWP.

Table 2 shows the source of local match which is derived from local dues. Each community's share is proportionate to their population, since the allocation of PL and FTA 5303 funding is determined in New Hampshire by population share within the urbanized area communities.

Table 3 depicts the anticipated scheduling of activities associated with the major task activities in the UPWP. Many tasks occur at specific identifiable time intervals in the UPWP program period; others occur only as needed, and others are ongoing throughout the two-year period. Those that are ongoing work tasks or occur only as needed a shown as fully shaded for the entirety of the UPWP.