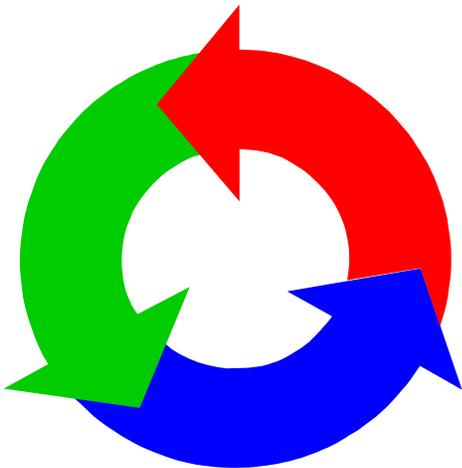


Comprehensive Transportation Planning Process

Workshop Documentation
March 15-19, 2004



Co-Sponsored By:
NC Department of Transportation
Federal Highway Administration

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Select and Scope Process

- Process Mission
- Workshop Purpose
- Workshop Outcomes
- Workshop Participants
- Sponsor Expectations
- Customers



Transportation Planning Process

Transportation Planning Process

Process Mission

To identify, through data-driven decision-making, long-range transportation solutions that can be evaluated, detailed and permitted for construction.

Workshop Purpose

To design a process that supports the development of a new long-range comprehensive (multi-modal) transportation plan

Workshop Outcomes

- Existing and redesigned process maps
- Customer Needs and Expectations
- Cost/Time Profile of Existing Process
- Key Issues
- Recommendations for Implementation
- Benefits and Risks
- High Level Implementation Plan
- Identification of Next Steps

Workshop Participants

Team Members

John Tippet, WPCOG Unifour MPO
Scott Walston, NCDOT
Rhett Fussell, NCDOT
Katherine English, NCDOT
Loretta Barren, FHWA
Hanna Cockburn, PTRPO
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Team Leaders

Dan Thomas, NCDOT
Andy Grzymiski, High Point MPO

Expert Participants

Leta Huntsinger, ITRE
Roy Shelton, NCDOT
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Travis Marshall, NCDOT
Mary Meletiou, ITRE

Sponsors

John Sullivan, FHWA
Roger Sheats, NCDOT
Mike Bruff, NCDOT
Greg Thorpe, NCDOT

Sponsor Expectations and Constraints

Sponsor Expectations

- Consistent with new Transportation Planning regulation and implementation planning completed to date
- Implementation plan will include:
 - Strategies for reaching consensus with MPO's and RPO's
 - Quality standards for products
 - Quality performance measures
 - Information necessary to support overall integration project

Constraints

- Recommendations consistent with geographic alignment
- Process consistent with Merger 01 process
- Process documentation consistent with PMii

Process Owners, Process Participants, and Customers

Process Owners

- Rural Planning Organizations
- Metropolitan Planning Organizations
- Local Government

Process Participants

- Process Owners
- Transportation Planning Branch

Customers

- Local Government
- Resource Agencies
- Project Development & Environmental Analysis Branch
- Others

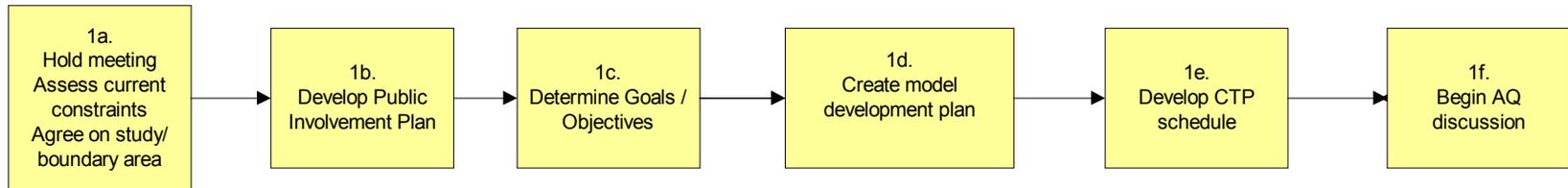
Analyze Current Process

- As-is Process Map
- Flow Item
- Cost Time Profile
- Customer Value Structures
- Issues
- Key Issues
- Root Cause Analysis

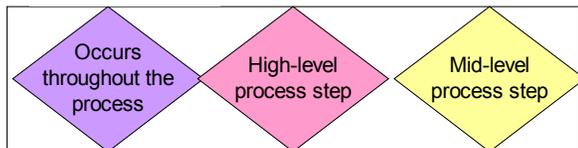


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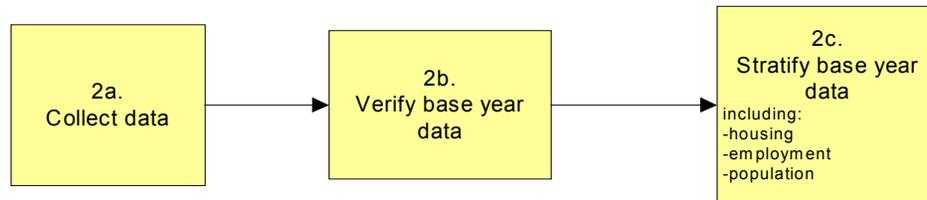
As-Is Process Map



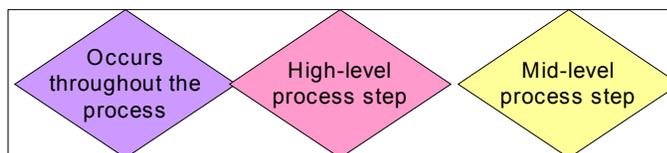
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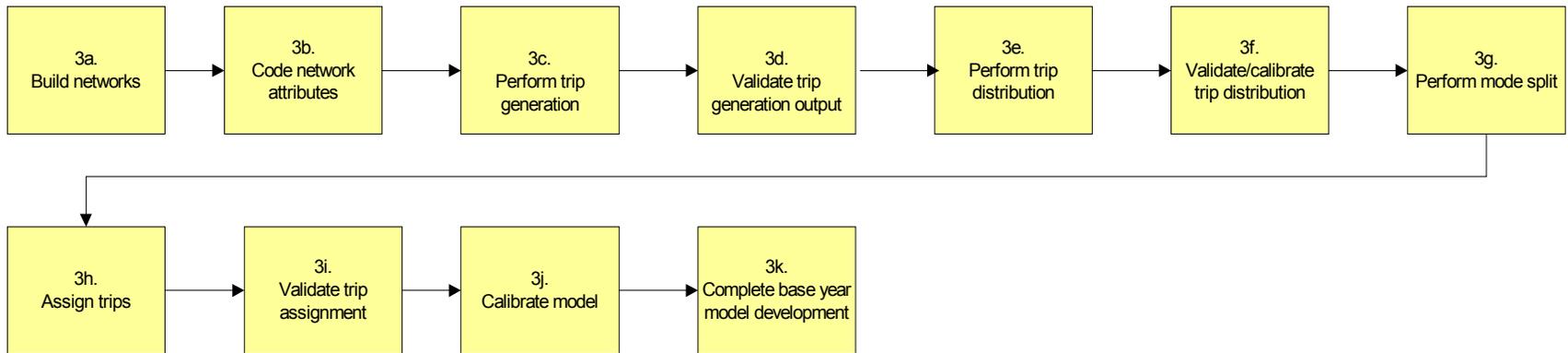
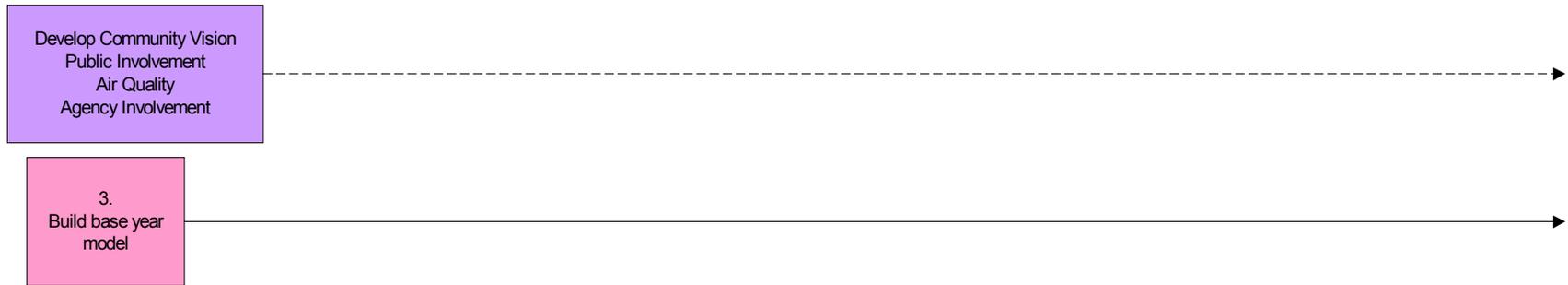
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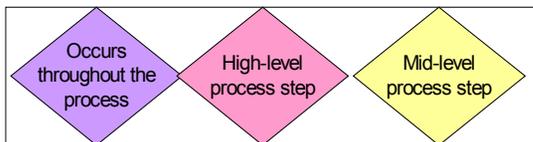
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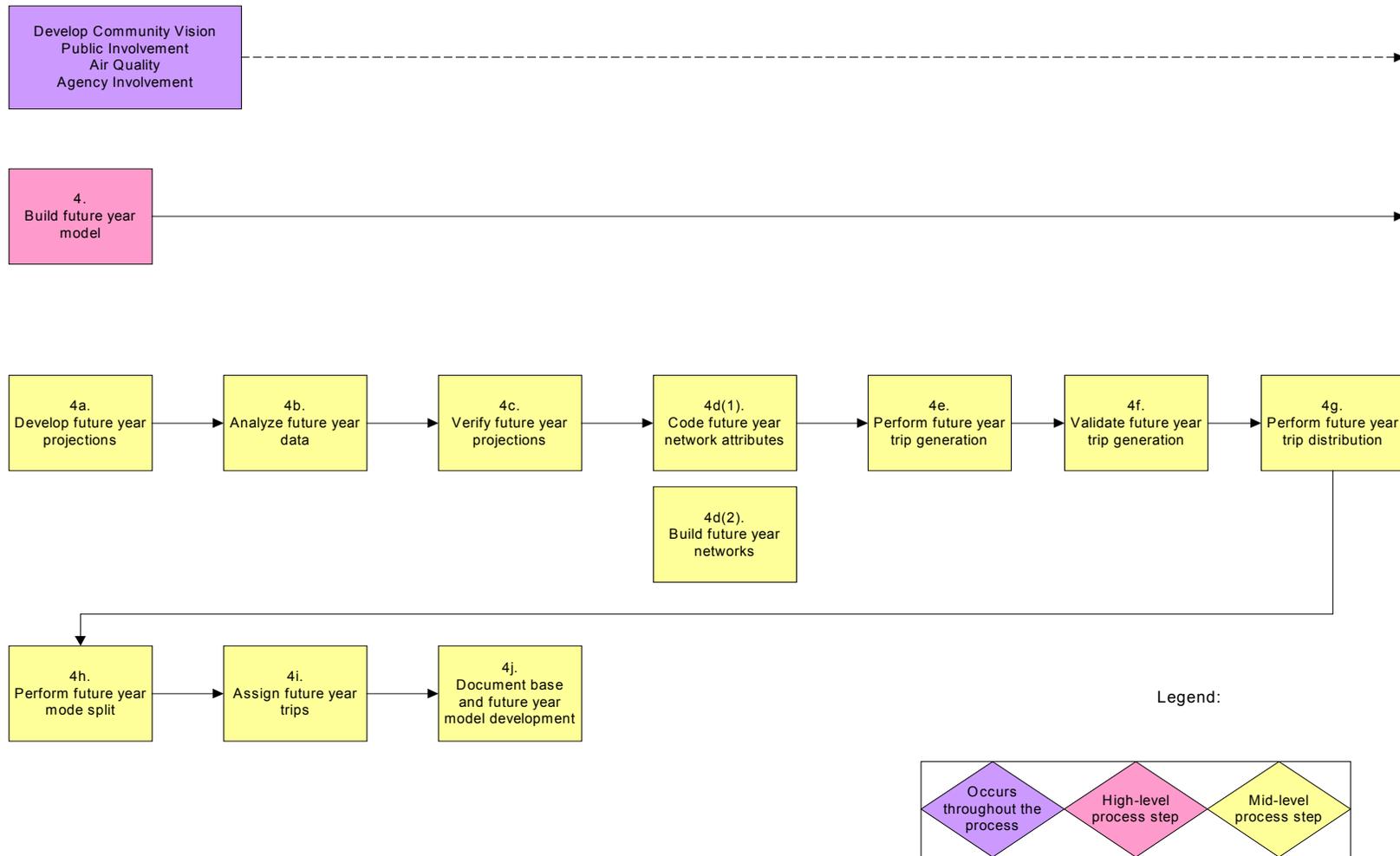
As -Is Process Map



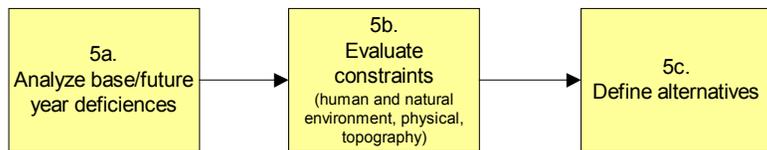
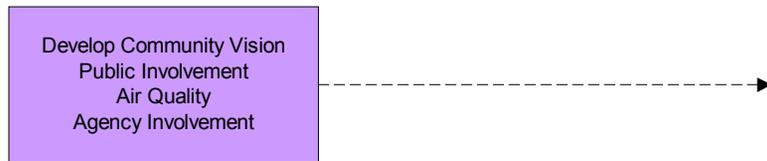
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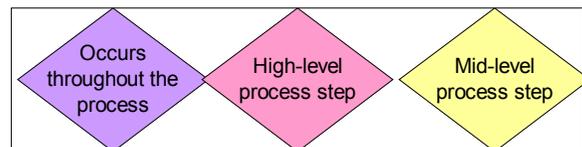
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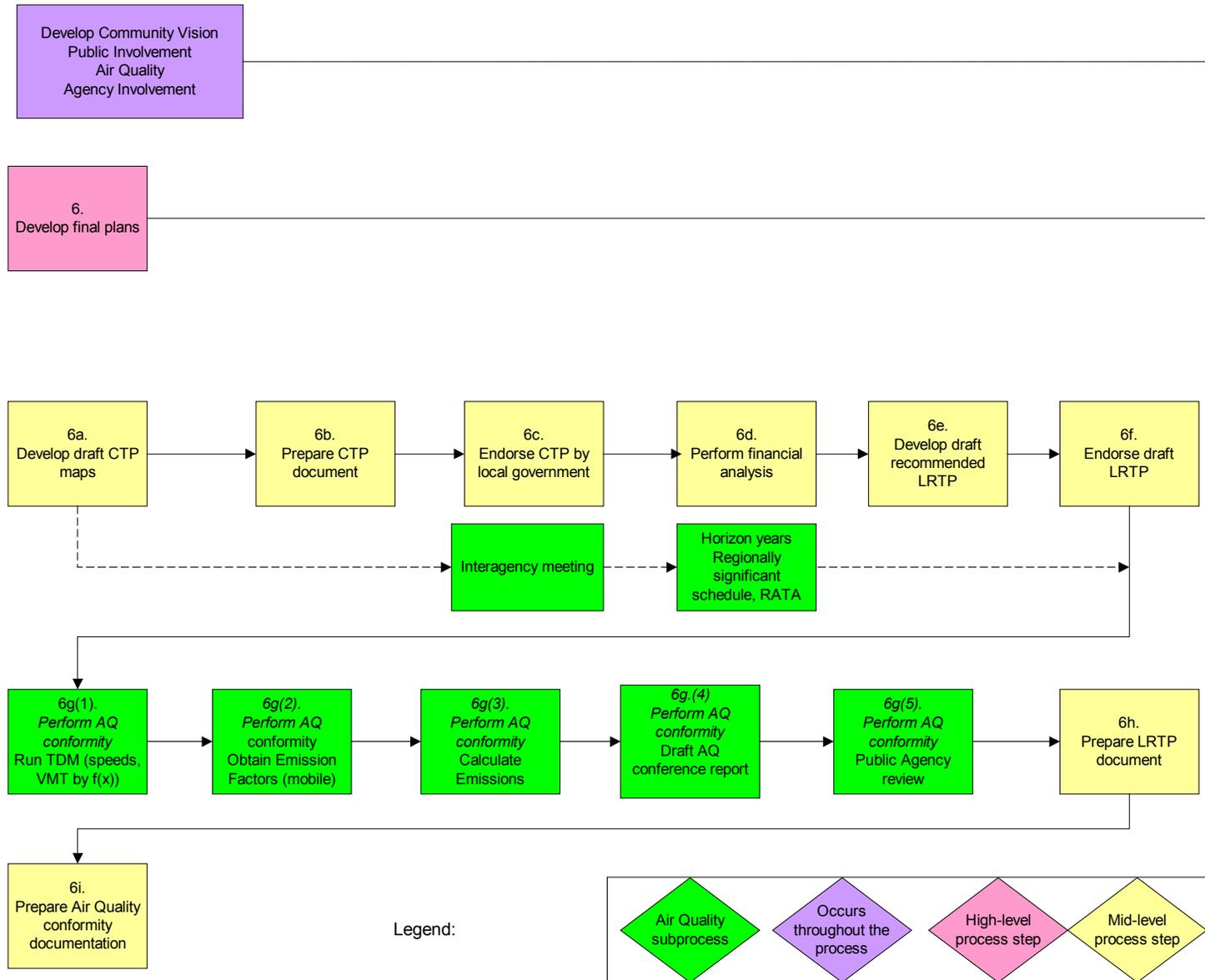
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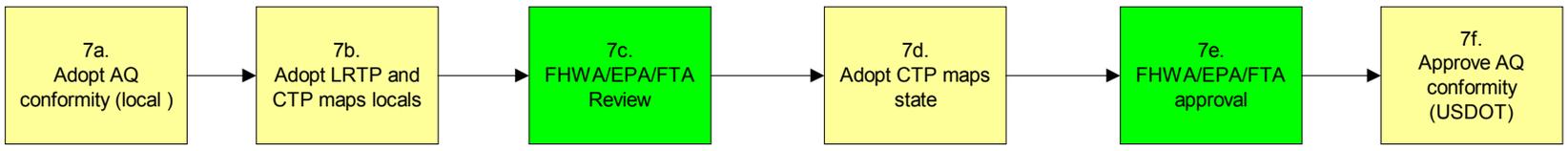
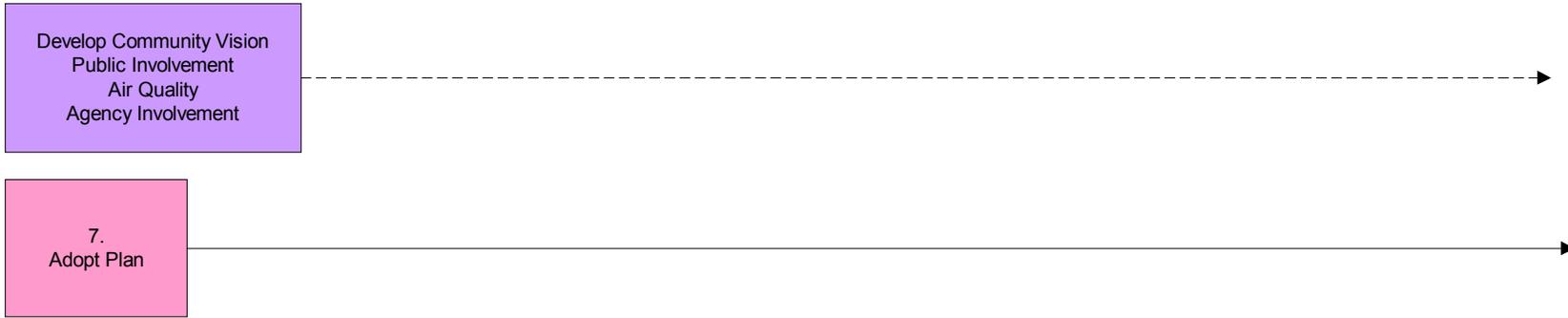
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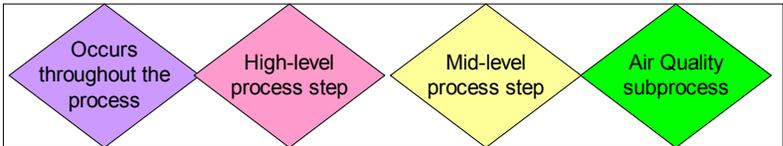
As-Is Process Map



As-Is Process Map



Legend:



Flow Item

(Describes the attributes of a representative type of project that goes through the process)

The flow item is an Asheville-type plan with air quality requirements, and has the following attributes:

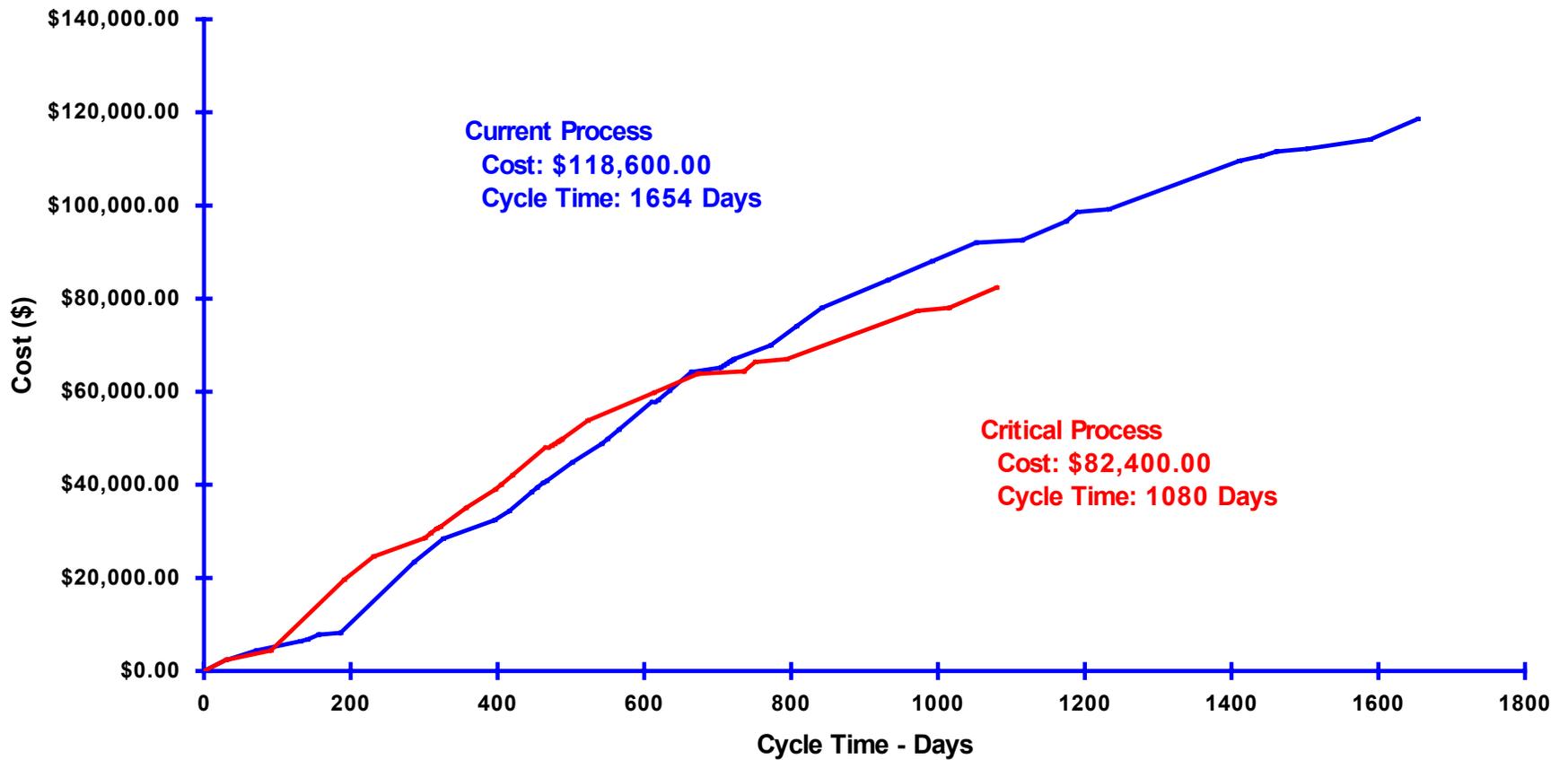
- MPO area
- Air quality conformity
- Major plan update
- Comprehensive plan with financial constraints
- TPB serves in management role for plan update
- Technical support from TPB

Assumptions (for flow item)

- MPO is clearly defined
- TPB is more of a “project manager”
(Does not imply management of MPO role)
- Model structure is still stable, but new base and future year data would be used
- Documentation of plan update will include CTP technical report and CTP/LRTP document/map
- Moderate number of comments on air quality conformity
- Land use tool for alternatives analysis

Cost Time Profile

Comprehensive Transportation Planning Process Cost-Time Profile



Customer Value Structures

Customer: MPO/RPO (Local Decision-Makers)

Needs	Value %	Performance	Score	Gap
Planning/Development Decisions/ROW	50	.6	30	20
Relationship of plan to TIP projects	25	.2	5.0	20
Accessible document – presentable to public	15	.3	4.5	10.5
Public involvement awareness/buy-in	10	.3	3	7
Totals	100	NA	42.5	57.5

Customer: MPO/RPO (Local Planners)

Needs	Value %	Performance	Score	Gap
Influence on land use decisions	25	.2	5.0	20
Accessible Documents ➤ Easy to read ➤ Executive summary ➤ Not too technical ➤ Project timing and scope	25	.1	2.5	22.5
Ability to plan big picture for future multi-modal improvements	25	.1	2.5	22.5
Involvement at all steps in process	20	.6	12	8
Achieving ultimate ROW on existing network	5	.9	4.5	.5
Totals	100	NA	26.5	73.5

Customer:

Program Development and Environmental Analysis (PD & EA)

Needs	Value %	Performance	Score	Gap
Local/State Consensus on Plan	15	1.0	15	0
Multi-Modal Solutions Considered	12.5	.3	3.75	8.75
Documentation of Recommendations	20	.4	8	12
Public Involvement	15	.4	6	9
Good Planning Level P & N	15	.6	9	6
Priorities for Improvements	5	?	?	?
Accurate Cost Estimates for Plan Projects	5	?	?	?
Useable/Up-to-Date Documentation	12.5	.5	6.25	6.25
Totals	100		48	42

Note: “?” means customer does not know how well this need is currently being met.

Customer: US Fish & Wildlife

Needs	Value %	Performance	Score	Gap
Environmental Constraints Considered	35	.2	7	28
Broad Range of Solutions Considered	20	.3	6	14
Open Process with Robust Public Involvement	20	?		
Clear Linkages Among Land Use Plan, G & O, & Final Transportation Plan	20	?		
Complete Documentation	5	?		
Totals	100		13	42

Note: “?” means customer does not know how well this need is currently being met.

Customer: Environmental Protection Agency (EPA)

Needs	Value %	Performance	Score	Gap
Environmental Constraints Considered	30	?		
Broad Range of Solutions Considered	20	?		
Open Process with Robust Public Involvement	15	?		
Clear Linkages Among Land Use Plan, G & O, & Final Transportation Plan	25	?		
Documentation Complete	10	?		
Totals	100			

Note: “?” means customer does not know how well this need is currently being met.

Issues

Develop Public Involvement Plan

- Education of local officials (not TAC) on relationship B/W land use & CTP (land use changed impact CTP)
- Lack of understanding of outcome of decisions
- Multi-modal disconnect (transit, bike, pedestrian)
- Explore opportunities to mainstream bike/pedestrian needs

Determine Goals/Objectives

- Priorities change constantly
- Project justification not clear to elected officials
- Re-visit and re-hash after decisions are made
 - New TAC/councils, etc.
- How to get local officials to stand up for projects on TP
- Now inclusion of HQR in land use development

Create Model Development Plan

- Understand delivery options throughout DOT

Develop CTP Schedule (Model, plan, R & R, PI, AQ)

- Commitment to schedule (state & local staff changes, slow process)
- No agreement on model development
- Commitment to schedule sense of urgency
- Get official agreement on overall schedule/roles-responsibilities by DOT & locals

Issues

Begin AQ Discussion

- AQ coordination with non MPO (RPO & local)

Collect Data

- Multi-modal data
- Non-common data collection process
- Timeliness of data collection
- Common environmental data between agencies
- Lack of use of data resources (not currently used)

Build Networks

- Not enough multi-modal in model
- How to get the multi-modal part to show and feel comfortable with output

Calibrate Model

- Lack of model validation

Develop Future-year Projections

- Need model/analysis of multiple land use scenarios
- Alternate land use plans (future-year data)
- Integration of community vision into FY projection process
- How do we add land use- transit feedback loops in a manageable way
- Tool needed to analyze transit (with land use)

Document Base/Future Model Development

- No model assumptions documented

Issues

Analyze Base/Future-year Deficiencies

- Over emphasis in model results

Evaluate Constraints

- Financial multi-modal issue
- Financial analysis too late

Define Alternatives

- Community wants to talk about design
- Context sensitive design – earlier in process
- Air quality analysis on multiple alternative land use and solutions (plans)
- Air quality not part of CTP
- Need roadway design assistance or consultant help

Develop Draft CTP Maps

- Lack of transportation plan standards – quality
- Roadway planning can be multi-modal and more dynamic
- Bike/Pedestrian needs should be integrated into roadway planning
- Solutions other than multi-lane
- Access Management/ITS operational improvements
- No method for evaluating travel demand, ITS, alternative solutions and other non-capacity

Prepare CTP Document

- Lack of understanding of system level P & N
- Responsibility of AQ Analysis

Issues

Perform Financial Analysis

- CTP relationship to funding realities
- Determining realistic funding levels for all modes
- For decision makers - limitations of funding sources
- Lack of creative funding options for bike/pedestrian (not just DOT)
- Cost estimates – How do we define and use?

Develop Draft Recommended LRTP

- In addition to the 5 CTP maps we need to provide in the LRTP
 - An environmental map
 - A land use map
- Definition of LRTP
 - What to include?
- More than just financially constrained
- Lack of LRTP documentation requirements (federal)

Endorse Draft LRTP

- Lack of tie of CTP to TIP
- Local understanding of relationship of plans to project implementation

Key Issues

Useful and meaningful documentation is not consistently provided in a timely manner to meet the varied needs of our stakeholders (22 points)

- Better documentation of public involvement and recommendations
- Public involvement – need to document more extensively (ads, articles, summaries of comments, etc.)
- How to better show problems and solutions (public presentation)
- Better documentation of reports (i.e. alternate, public involvement, G & O)
- What should be involved in documentation
- Require technical documentation earlier in process
- Complete CTP document earlier (before adopt)
- Develop draft CTP map and documentation concurrent with everything else (also tech. doc)
- Document CTP and LRTP together and before adoption
- Documentation of alternatives
- Document alternative analysis (major flaws)
- Rejected alternatives that keep re-appearing
- Priorities for improvement for AQ areas and other study areas
- Documentation changes
- Understandable/meaningful documentation
- Documentation meets TPB habits and expectations, not genuine customer needs
- Ways to transfer plan results and recommendations to PDEA as a starting point
- Need to add to document
 - Multi-modal alts
 - Why eliminate alts
 - Priorities in approximate 10 year horizons
 - Document land use link/analysis
 - P & N including why other modes won't serve need

Key Issues

There is a failure to retain experienced personnel and to adequately enhance the knowledge and technical expertise of staff; additional outside resources are not fully utilized (16 points)

- TPB is too many things to too many agencies
- Not using all available resources (agencies, etc.)
- Need more resources – especially ref. air quality
- Need for “expert” assistance
- Limited internal knowledge base
- Knowledge (i.e. experience)
- Retention of personnel
- Lack of understanding of GIS
- Build local constituencies for bike/pedestrian
- Not enough trained staff to do the job

Without a prescribed method for linking transportation planning and land use planning, a community’s vision cannot be fully realized (12 points)

- Decision-makers need more policy alternatives – implications of choices
- No community vision
- Lack of policy discussion
- Define land development plan
- Linkage of long range land use planning and LRTP
- Land use/plan integration
- What linkage there is not understood
- Should there be more
- Need for accommodation of special features unique communities outside normal process/guidelines
- Land use coordination with CTP

Key Issues

There is a lack of clearly defined “best practice” standards and when/how to apply them (10 points)

- Best standards of practice
- Standard practices
- Clearly defined “how-to” best practices
- Balance between one size shouldn’t fit all and standards
- Forecasting methodologies –SE and traffic

Modeling alone is insufficient to fully consider multi-modal alternatives and then costs and benefits (10 points)

- Misconceptions on basic bike/pedestrian issues/solutions
- Cost estimates for multi-modes
- Model is not the only tool in decision making
- Multi-modal alternatives, they cannot always be modeled

No clear public involvement process exists to fully meet expectations (9 points)

- PI process to meet resource agency needs
- How to get more public involvement from people who are impacted
- Make sure everyone knows to include bike/pedestrian in process
- Articulate expectations and limitations clearly
- Public involvement - need to include more opportunities especially “work sessions” with public, local planners and officials
- Public involvement - to get better attendance - need to better advertisement (fax fliers to community groups, churches, show map with ad or article)
- Locals define what they want or will accept
- Public involvement plan of action - redefine
- No bench mark for Min. public involvement

Key Issues

Environmental constraints are not clearly defined and consistently incorporated in analysis and documentation (8 points)

- Environmental constraints review not clearly defined
- Better environmental analysis and documentation
- Need more extensive screening
 - more consistent documentation
 - involve agencies
- Document environmental constraints (better)
- Display of environmental considerations
- Non inclusion of HQR in CTP development

In the planning process, there is poor communication within branches of NCDOT and between departments of NCDOT (6 points)

- Involvement of systems planning engineer in project process will help
- No common database for everyone involved (NCDOT departments)
- Transferability of information between branches
- Communication within departments
- Improve linear process from planning to construction

For transportation planning, there is not uniform data collection process or method for sharing data (between agencies or within an agency) (4 points)

- Lack of use of data resources (not currently used)
- Common environmental data between agencies
- Timeliness of data collection
- Non- common data collection processes
- Multi-modal data

Root Cause Analysis

Without a prescribed method for linking transportation planning and land use planning, a community’s vision cannot be fully realized

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ Land use not linked to transportation plans ▪ Inability to currently capture “daily” land use changes (cumulative) between plan updates ▪ No land use plans ▪ Ability to reflect land use changes 	<ul style="list-style-type: none"> ▪ No state statutory requirement for land use 			<ul style="list-style-type: none"> ▪ Lack of sharing of information between local land use and transportation planning ▪ Don’t understand the relationship between two 	<ul style="list-style-type: none"> ▪ Political turnover ▪ No political will to support vision ▪ Not making daily decisions to support land use to support vision ▪ Land use changes daily

Root Cause Analysis

There is a lack of clearly defined “best practice” standards and when/how to apply them

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ Wide assortment of tasks ▪ New technology 	<ul style="list-style-type: none"> ▪ Under-defined direction ▪ No consensus on a single best standard ▪ No standard policy on when to apply ▪ No reason for things to change 	<ul style="list-style-type: none"> ▪ No one assigned responsibility for developing best practice 	<ul style="list-style-type: none"> ▪ Resources ▪ Lack of outside knowledge / assistance ▪ No knowledge of best standards 	<ul style="list-style-type: none"> ▪ Local expectations don't coincide with current practices ▪ Lack of sharing information / communication 	<ul style="list-style-type: none"> ▪ Cost estimates ▪ Data collection

Root Cause Analysis

Environmental constraints are not clearly defined and consistently incorporated in analysis and documentation

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ Not enough time in process ▪ No clear priorities in process ▪ Inconsistent evaluation of EJ ▪ Time consuming 	<ul style="list-style-type: none"> ▪ How to interpret environmental layers ▪ Unclear understanding of what environmental items to focus on ▪ To what extent to study environmental issues ▪ No standard environmental section in document ▪ No standard layers that must be shown 	<ul style="list-style-type: none"> ▪ Environmental layers from TPB and PDEA ▪ Not a clear division of responsibilities (state, local, and resource agencies) ▪ No ownership of environmental process 	<ul style="list-style-type: none"> ▪ Utilization of GIS for analysis ▪ Quality of environmental data ▪ Availability of high quality data ▪ No understanding of restricted layers (sharing with partners) ▪ How to accurately show environmental data 	<ul style="list-style-type: none"> ▪ Lack of community awareness 	

Root Cause Analysis

Modeling alone is insufficient to fully consider multi-modal alternatives and then costs and benefits

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ Few truly long range (20-30 yrs) transit plans ▪ Inexperience in multi-modal planning ▪ Time intensive for small returns ▪ Lack of knowledge of multi-modal tools ▪ Complexity of tools 	<ul style="list-style-type: none"> ▪ Few truly long range (20-30 yrs) transit plans 		<ul style="list-style-type: none"> ▪ Inadequate tools to analyze multi-modal ▪ Complexity of tools ▪ Lack of knowledge of multi-modal tools 		

Root Cause Analysis

For transportation planning, there is not uniform data collection process or method for sharing data (between agencies or within an agency)

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ It's new; don't know all of what is needed ▪ Competing model methodologies / different data sets ▪ Lack of understanding of data needed at each step of the process ▪ Lack of knowledge of how data is used for decision-making 	<ul style="list-style-type: none"> ▪ Lack of mandate 		<ul style="list-style-type: none"> ▪ Lack of latest hardware /software ▪ Lack of compatible technologies ▪ Expensive to collect 		<ul style="list-style-type: none"> ▪ Training ▪ Lack of training ▪ Don't know what's available

Root Cause Analysis

No clear public involvement process exists to fully meet expectations

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ Lack of understanding of mandates of public involvement ▪ Adds time to process ▪ Lack of public education about process ▪ Everyone is different ▪ Lack of understanding how the public's input is integral to the decision-making process ▪ What does a quality public involvement process look like? 		<ul style="list-style-type: none"> ▪ Who should do public involvement? 	<ul style="list-style-type: none"> ▪ Lack of resources ▪ Lack of public involvement skill ▪ Money ▪ Methods of techniques to get involvement 	<ul style="list-style-type: none"> ▪ Unsure of expectations ▪ Customer expectations are not always realistic 	

Root Cause Analysis

There is a failure to retain experienced personnel, and to adequately enhance the knowledge and technical expertise of staff; additional outside resources are not fully utilized.

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ Inadequate training 	<ul style="list-style-type: none"> ▪ Pay 	<ul style="list-style-type: none"> ▪ Inadequate training 	<ul style="list-style-type: none"> ▪ Inadequate training ▪ Too many responsibilities ▪ No process document ▪ Lack of training ▪ Limited time to manage consultants ▪ Limited funds for outside resources ▪ Pay 	<ul style="list-style-type: none"> ▪ Inadequate training 	

Root Cause Analysis

In the planning process there is poor communication within branches of NCDOT, and between departments of NCDOT

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ Silo effect ▪ Lack of process linkage ▪ Project tracking ▪ No accountability 	<ul style="list-style-type: none"> ▪ Lack of clearly defined goals /vision of DOT management and BOT (1st floor) ▪ Lack of process linkages ▪ Silo effect 	<ul style="list-style-type: none"> ▪ Lack of process linkages ▪ Silo effect ▪ Territorial ▪ Lack of understanding ▪ Lack of trust between divisions/ branches ▪ Lack of time ▪ No accountability 	<ul style="list-style-type: none"> ▪ Department is spread out ▪ Lack of time 	<ul style="list-style-type: none"> ▪ Bad past experience working together ▪ Territorial ▪ Lack of understanding ▪ Lack of project tracking ▪ Lack of trust between division / branches ▪ Lack of clearly defined goals / vision of DOT management and BOT (1st floor) 	<ul style="list-style-type: none"> ▪

Root Cause Analysis

There are no clearly defined roles and responsibilities for the planning partners

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ No mandate ▪ No formal agreement ▪ Ability to recognize who can assume different roles 			<ul style="list-style-type: none"> ▪ Lack of resources (time and people) ▪ Lack of training on new skill set 		<ul style="list-style-type: none"> ▪ Turf issues ▪ To point fingers ▪ Willingness to recognize that the skill set exists by others

Useful and meaningful documentation is not consistently provided in a timely manner to meet the varied needs of our stakeholders

Process	Policies	Roles and Responsibilities	Resources	Communication	Other
<ul style="list-style-type: none"> ▪ So many end-users of information ▪ Time pressures ▪ Not common understanding of how documents will be used ▪ Low priority ▪ Not defined how the pieces fit together 	<ul style="list-style-type: none"> ▪ No standard ▪ What goes into document? 	<ul style="list-style-type: none"> ▪ Everything in document is not used by each group ▪ Document changing with each person 	<ul style="list-style-type: none"> ▪ Timeliness of required data 	<ul style="list-style-type: none"> ▪ What desired format? PDF or word ▪ Current practices don't meet customer expectations 	

Multi-Modal Decision Analysis

Step in existing process	Questions Asked	Process Step Where Data Would Be Analyzed	Type of Activity Conducted	Step(s) in Process Where Data Would be Collected
2c	Why aren't there more transportation options?			
3a	Where are non-road networks?			2a – Data collection for multimodal 1d – What modes and in/off the model? 1c – Are there local goals and objectives to support multimodal? 1a – Is multimodal a consideration?
3g	What is the mode split?			2a – Collect data 2b – Validate data
4h	What is the mode split going to be in the future?			4a – socioeconomic data 4b – develop information 4c – develop information
5c	<ol style="list-style-type: none"> 1. What multi-modal alternatives are being considered? 2. How much of the problem can be solved with multi-modal solutions? 3. How many lanes could you reduce a particular alternative if transit is used? 4. How are non-motorized modes being incorporated? 5. How much more would we have to invest (land use decisions, financial, etc.) in transit to achieve/support a certain reduction? (a policy decision would be made here) 	<ol style="list-style-type: none"> 1. -- 2. 4 a, 4b, c 3. 5c 4. -- 5. 4a, b, 4c 	<ol style="list-style-type: none"> 1. Policy discussion 2. -- 3. 4a 4. Policy discussion that occurs at Step 5c) 5. Policy decision (feedback loop) 	<ol style="list-style-type: none"> 1. Links to Step 2a 2. -- 3. 4i 4. 1c, 2a 5. --
6e	Do the costs of projects in LRTP include those multi-modal elements?	6d		
6g	What is the reduction of VMT and emissions with a multi-modal solution? AND How much are we worsening by not focusing on multi-modal?	6g, 5c, 6e		

Design New Process

- Redesign Ideas
- Revised Process Map
- Assumptions
- Measures



Redesign Ideas

Resources

Process Related Ideas	General Redesign Ideas	
<ul style="list-style-type: none"> • Partner with other state agencies that have responsibility for land use planning (i.e. DCA, Coastal Management (1a) • Use other agencies to develop a modeling partnership to facilitate knowledge exchange (2e) • Develop routine schedule for all updates so the expectations on resources are laid out up front (2a) • Web based study tracking/milestones/ Schedule keeps all stakeholders and public aware (1h) 	<ul style="list-style-type: none"> • Accountability system developed/ implemented for TPB staff (HB/LD) • Purchase memory sticks for mobility of data to free space on common drives (LB/LD) • Encourage geographical alignment of other "partner" branches that match TPB's boundaries not necessarily division lines (HB/HD) • Pay fair market for technical expertise • Find better ways to reward people than more work (HB/HD) • Broad Band specialization staff with specific training, evaluation, and rewards (HB/HD) • Dedicate time/positions from other DOT units to lend expertise (roadway other modes, PDEA, public involvement (HB/HD) • Be more open to consultants doing some process tasks (HB/LD) • TPB should not jump through hoops/change work priorities to satisfy areas that procrastinate (LB/LD) • Establish job roles/descriptions of tasks people can do (HB/HD) • Better recruiting of all types of degrees (biologist, planners, etc) throughout DOT (HB/HD) • Expand technical modeling unit to centralize process (people developing models not doing other tasks)(HD/LB) 	<ul style="list-style-type: none"> • Resource needs; positions or money in TPB to handle current workload and/or any additional workload; especially to assist small rural areas w/CTP process and TF's • Identify areas of expertise and knowledge weakness and identify outside resources to meet weakness • Devote a position in roadway design to help TPB (HB/HD) • Training or dedicated positions with expertise in land use, other modes, public involvement, etc. (HB/HD) • Dedicated time/positions from resource agencies to coordinate during CTP/LRTP process • Multi modal specialists for smaller areas transit for bike/ped elements (HB/HD) • Hire staff at all levels agencies (HB/HD) • Provide specialist staff (reduce competing work tasks); consultants/RFP; environmental Issues; public meetings; modeling; modes (HB/HD) • Diversify TPB staff; engineers, planners, modal specialists, PI specialists (HB/HD) • Devote adequate Resources to meet plan develop schedule (HB/HD) • Have NCDOT staff physically located throughout NC not just in Raleigh (HB/HD) • Regularly review Roles/ Responsibilities and identify where training is needed or others are ready to assume new tasks (HB/LD) • Partner with other states/MPO more exp. In multi modal plan • Create position for plan tracking (HB/LD)

Redesign Ideas

Training

Process Related Ideas	General Redesign Ideas	
<ul style="list-style-type: none"> • Educate local officials for a clear understanding of what CPT can/can't do (1a) • Develop policy-level presentation to give elected officials (1e) • Educate elected officials on what level of investment is needed for transit to make a difference (3e) 	<ul style="list-style-type: none"> • Train MPO's to do modeling (HB/LD) • Partner with MPO's and consulting firms to expedite model development • Focus training on specific users/staff • Locals should be re-educated on the process every 2 to 3 years (HB/HD) • Statewide plan process, policies communicated to local officials (HB/HD) • Develop "certification/training" for decision makers; local land use planners; resource agencies etc, and basic understanding of Trans. Plan (HB/HD) • DOT needs TPB public involvement, AQ, multi modal, etc (HB/HD) • Continuous training for planning partners (HB/HD) • Education of locals on aquatic/environmental resource issues (underway)(HB/HD) 	<ul style="list-style-type: none"> • Identify training needs that FHWA could assist with (HB/LD) • Create mechanism for those attendees training to be accountable (i.e. third person teach)(HB/HD) • DOT should have a training class for other branches tasks (HB/HD) • Train people (everyone in branch and locals) on how to use GIS (HB/HD) • DOT non-TPB units resource agencies local staff and public manage expectations; in basics of Transportation Planning process (HB/LD) • Need regular training for people new MPO's and RPO's; the basics (HB/HD) • Develop training programs for major components of process (different levels) (HB/HD)

Redesign Ideas

Public Involvement

Process Related Ideas	Process Related Ideas	General Redesign Ideas
<ul style="list-style-type: none"> • Develop ideal public participation processes (1c) • Interactive public involvement process (1c) • Develop internal public involvement program instead of relying on local process (1c) • Quality public involvement guidance should be developed (1c) • Ask public how they want to be involved (1c) • Better advertisement ads w/ maps, radio, /TV, fliers to community groups churches, etc (green tab) • Develop better ways to obtain locals goals/objectives (1e) • Use “work sessions” for small group generation of goals, alts, etc, including local staff officials and public (green tab) 	<ul style="list-style-type: none"> • More extensive effort to define vision and identify goals and objectives they carry this info through process (1e) • Tie LRTP projects to consensus community vision (4d) • Implement initiation meeting establish agency’s roles and responsibility, establish schedule, establish expectations, more performance measures (1a) • Use toolbox options to capture unique community needs (1e) • MPO’s develop min. PI process (1c) 	<ul style="list-style-type: none"> • Public involvement team 2-3 people; know rules; set up; go/speak; research new tools/techniques; assist or lead • Bring in national experts on public involvement to assist (HB/LD) • Develop PI tool box to share with planning partners • Develop process guidelines for accommodating unique community needs/feature (HB/HD) • Improve DOT credibility with communities and individuals and media (HB/HD)

Redesign Ideas

Alternatives Evaluation

Process Related Ideas	General Redesign Ideas
<ul style="list-style-type: none"> ▪ Document why/why not used alternatives (3d) ▪ Alternative analysis should also be validated by the G & O (3b) ▪ AQ considered in CTP “wish list” of projects (3e) ▪ Context sensitive design discussions as part of planning process (1a) ▪ Develop (community specific) evaluation matrix for evaluating multi-modal alternatives – prior to alternative analysis (1h) 	<ul style="list-style-type: none"> ▪ Focus on ‘key corridors’ (HB/HD) <ul style="list-style-type: none"> ▪ Desired routes ▪ Desired cross section ▪ Integrate context sensitivity into community vision/values ▪ Context sensitive focused-plan

Best Practices

Process Related Issues	General Redesign Ideas	
<ul style="list-style-type: none"> ▪ Create series of standard formal approval milestones (such as after land use projections, existing model, etc.)(Green Tab) ▪ Official agreement on schedule and roles and responsibilities for entire process (1h) ▪ Create schedule templates (model/CTP) with general tasks detailed (2a) ▪ Document model validation measures that follow best practice at beginning of process (1h) ▪ Get formal roles/responsibilities document at start for study and for model – signed by management (2a) 	<ul style="list-style-type: none"> ▪ Implement Best Practices (HB/HD) ▪ “Best Practices” should be a menu, not a single force-fit practice (HB/HD) ▪ Determine best standards of practice and document why/why not (HB/HD) ▪ Develop Best Practice for Modeling (HB/HD) ▪ Setup scheduling agreement process ▪ Document best practices for plan level (model, socioeconomic data, collection and projection, plan done) ▪ Develop feedback process for what TPB does or is missing (HB/LD) 	<ul style="list-style-type: none"> ▪ Actively encourage/participate in “horizontal” information flow in Branch; not rely on flow of information up through management and back down (HB/LD) ▪ Expand policies and guidelines to accommodate creative approaches (HB/HD)

Redesign Ideas

Land Use Issues

Process Related Ideas	General Re-design Ideas
<ul style="list-style-type: none"> ▪ Have all partners involved in vision development (1e) ▪ Develop strategies and help local staff implement method for tracking S-E changes between model updates ▪ At initial step – agree on # alt. land use. One must be designated as current policy/practice based for AQ plan. (or they change policies)(1a) ▪ Establish validation measures for land use forecast (2h) ▪ Use Land use PI staff to ascertain plan projections and allocations (2g) ▪ Develop/implement <u>specific</u> strategies to integrate CTP/LRTP and land use plans (i.e., map together)(2e) 	<ul style="list-style-type: none"> ▪ TPB/MPO RPO participation in local land use planning ▪ Checks/balance system for SE future changes (HB/LD) ▪ Municipalities in all counties should have land use controls (HB/HD) ▪ Limit assistance involvement with areas that don't have land use plans or controls (LB/LD)

Modeling

Process Related Issues	General Redesign Ideas
<ul style="list-style-type: none"> ▪ Team approach to model development to facilitate parallel task completion and efficient use of resources (2e) ▪ Combine base/future modeling steps (2e) ▪ Run air quality analysis on multiple alternatives plan and maybe multiple land use scenarios (3c) ▪ Document roles/responsibilities in model development tasks (2a) ▪ Require checklist of modeling steps to ensure quality results (2e) ▪ Develop standard schedule for model development including milestones and validation check points (2a) ▪ Apply decision tree for model choices (2e) ▪ Develop model specifications to include goals/objectives of what model will be used for to meet community needs (2a) ▪ Perform a linked preliminary AQ analysis on alternatives (3c) 	<ul style="list-style-type: none"> ▪ Creation of statewide model (HD/LB) ▪ Validate modeling process for “non-modelers” to improve trust (HB/HD) ▪ Use innovative analysis tools to develop better “what-if” scenarios for land use and transportation ▪ Develop different modeling/analysis tools for different uses (HB/HD) ▪ View modeling as on-going tool development and take it out of timeline for plan updates (HB/LD) ▪ Investigate/implement use of secondary sources of model data (HB/HD) ▪ Develop decision tree for modal choices (HB/HD)

Redesign Ideas

Environment

Process Related Issues	General Redesign Ideas	
<ul style="list-style-type: none"> ▪ PDEA/Resource Agencies and TPB agree on necessary environmental data (1h) ▪ Consider (human/physical) constraints before establishing future network (3a) ▪ Apply agreed upon environmental data in transportation planning (3a) 	<ul style="list-style-type: none"> ▪ Expand HQR beyond water features (HB/LD) ▪ Determine environmental data that will be studies (standards) and depth based on PDEA standards (HB/LD) ▪ Establish environmental layers as a standard across NCDOT (HB/LD) ▪ 	<ul style="list-style-type: none"> ▪ Develop consistent environmental databases for local (land use) TPB and PDEA (HB/LD) ▪ Engage environmental resource agencies in TP process (HB/LD) ▪ Centralize environmental database so all data is up to date (HB/LD)

Multi-Modal

Process Related Ideas	General Redesign Ideas
<ul style="list-style-type: none"> ▪ Coordinate with multi-modal experts when developing standards & during process (1h) ▪ Work on multi-modal solutions must be identified early in the process (3b) ▪ Require true 20-year LRP for transit and other modes (1a) ▪ Get alternate modes directly involved in planning process (1a) ▪ Find a way to balance the analysis of mode without cost/benefit analysis (3g) ▪ Determine cost estimates for other modes (2b) 	

Redesign Ideas

Implementation

Process Related Issues	General Redesign Ideas	
<ul style="list-style-type: none"> ▪ Implement feedback between land use forecasts and model performance (2e) ▪ Include resource agencies in planning process (1a) ▪ Implement strategic corridors concept to affect decision-making (1e) ▪ Merger Pt. 2 should be concurred on major new location projects during long-range planning process 	<ul style="list-style-type: none"> ▪ FHWA provide consistent/specific guidance on LRTP (HB/LD) ▪ Determine funding gap of CTP for all modes – include maintenance and operation costs (HB/HD) ▪ Legislative funding for economic development projects; should go through the planning process (HB/HD) ▪ Project tracking database accessible by DOT and local staff ▪ Create project tracking ability (for notes) ▪ Find more creative funding options for bike/pedestrian (not just DOT)(HB/HD) ▪ NCDOT stronger stand against building projects that go against adopted plan (HB/HD) ▪ Find new/creative ways to fund transit options (HB/HD) ▪ Regionally significant projects should be identified in the TIP (HB/HD) 	<ul style="list-style-type: none"> ▪ Make CTP more usable to field staff (divisions) and other branches (facility type) (such as for driveway permits, cross sections)(HB/LD) ▪ TIP process should be better linked to LRTP (HB/HD) ▪ NCAPA/NCAMPO advocate for legislative changes to land use planning requirements (HB/HD) ▪ Identify champion that will secure funding for key resource needs ▪ Improve linear process from planning to construction (HB/HD) ▪ Recognize philosophical shift in statewide transportation plan in individual CTP's (i.e., shift from expansion to more maintenance, preservation and modernization)(HB/HD)

Redesign Ideas

Standards

Process Related Ideas	General Redesign Ideas	
<ul style="list-style-type: none"> ▪ Incorporate the feasibility studies process into the systems plan (Parking Lot) ▪ Use land use planning principles (2e) ▪ Do feedback loop between land use scenarios/projections and CTP alternatives (3c) ▪ More robust financial plans/analysis (2b) ▪ Resource agencies are required/mandated “to voice” primary specific areas of concern before alternatives are developed (allows some additional avoidance measures)(3a) ▪ Early in process, document and send to locals LRTP, CTP and model expectations process and schedule (2a) 	<ul style="list-style-type: none"> ▪ Develop standards for CTP and LRTP ▪ Footnote on CTP maps to refer to document (HB/LD) ▪ Develop methods for specifically how to develop and implement CSS in transportation planning ▪ Develop standards by which to measure whether CTP adequately meets future needs ▪ Address specific implementation policies for bike-pedestrian design needs (HB/HD) ▪ Ensure that schedules for plan updates in adjoining areas match (HB/LD) ▪ The agencies should devote resources earlier in the planning process ▪ Assure consistent application / dissemination of bike/ pedestrian guidelines (HB/HD) 	<ul style="list-style-type: none"> ▪ Establish/use performance measures for all models ▪ Standardize product expectations, timeframes and storage requirements (CD)(HB/LD) ▪ Develop critical path diagram for model development tasks (HB/LD) ▪ Identify policies that are obstacles to plan implementation (HB/LD) ▪ Develop standard model develop process ▪ Warrants need more flexibility (HB/HD)

Toolbox

Process Related Ideas	General Redesign Ideas	
<ul style="list-style-type: none"> ▪ Include freight planning (2e) 	<ul style="list-style-type: none"> ▪ Strengthen corridor protection tools (HB/HD) ▪ Develop tools/ processes for evaluating multi-modal options – the travel demand model is not the only tool ▪ Develop tools to evaluate ITS/TCM options 	<ul style="list-style-type: none"> ▪ Develop/use good benefits/cost analysis methods/tools (lends transparency and improves data decisions) ▪ Develop multi-modal analysis tool box ▪ Develop tools for freight planning (HD/LB)

Redesign Ideas

Data Process

Process Related Ideas	General Redesign Ideas	
<ul style="list-style-type: none"> ▪ Locals checking data earlier in the process (2c) ▪ Find out what data is available for modes of transportation (2b) ▪ Agree on state/regional control totals (SE data)(2g) ▪ Show environmental features on CTP document maps (visual support for shown alignments)(3a) ▪ Map environmental layers with transit system – all modes (3a) 	<ul style="list-style-type: none"> ▪ Use local areas GIS databases, too ▪ Develop GIS tools to facilitate verification of land use data ▪ Standardize base map – GIS ▪ Adopt / produce easier, defensible data process (HB/HD) ▪ Up to date GIS layers that are common throughout NCDOT and locals ▪ Develop official method / system for sharing GIS data/analysis between DOT and locals ▪ Find out what data is available for modes of transportation ▪ Develop data “library” for all users that is useful for trending and analysis (HB/HD) ▪ Standardize data, i.e., growth projections from state planning 	<ul style="list-style-type: none"> ▪ Projections should start with regional total, then build from ground up (HB/LD) ▪ Always do data in 10-year increments and always project only 10 years ▪ Identify, obtain needed technology and training on how to use available or new data sources ▪ Develop data feedback process to ensure new data is incorporated ▪ Database for model data ▪ Develop a data management process for network data ▪ Enhance GIS line data to include highway attribute data (HB/LD) ▪ Develop a data management process for land use data (HB/HD) ▪ NCDOT dollars support development of better environmental data (HB/HD) ▪ Change data collection to better represent acceptable standards

Redesign Ideas

Documentation (all ideas in this category are process-related) *High Benefit/High Difficulty*

Process Related Ideas	
<ul style="list-style-type: none"> ▪ Complete CTP document before adoption ▪ Document everything as you go through steps with mile stones of when document sections should be written (Red Tab) ▪ Document project priorities (i.e., in app. 10 yr. Horizon groupings)(4d) ▪ Document LRTP environmental considerations ▪ Fully document all alternative analysis ▪ Define P & N at the systems planning level (with approval by resource agencies) maybe MOU/MOA which feeds into merge 1 pt. ▪ Document <ul style="list-style-type: none"> ▪ Environmental constraints better ▪ Involvement of agencies ▪ Why eliminate alts. (fatal flaws) ▪ Document project cost estimates (How? Projected to what year?) ▪ Develop useful template for meaningful documentation ▪ Timely documentation of the process should be better incorporated into work plans ▪ Document the entire process including AQ in a procedures manual ▪ Training – need comprehensive documentation of how to do CTP/LRTP inc. flexibility and “tool box” of options ▪ Throw out all TPB report structures. Start over w/redesign of multiple document(s) based upon customer input. Deadlines/milestones attached. 	<ul style="list-style-type: none"> ▪ Document public involvement better (ads, articles, summaries of comments, etc.) ▪ Complete documentation before adoption ▪ Set realistic deadline for reports to be completed before end of process ▪ Document CTP & LRTP together and before adoption ▪ Document at system level (TPB) <ul style="list-style-type: none"> ▪ Environmental analysis ▪ Alt. Analysis ▪ Fatal flaws ▪ Community goals & objectives ▪ Problem statement ▪ Technical analysis ▪ PI process/outcome ▪ Document – require technical documentation earlier in the process ▪ Develop P & N earlier ▪ Develop P & N for each system ▪ P & N for LRTP projects ▪ Include P & N in plan process, esp. for 1 – 10 years of plan ▪ Develop and use P & N – type documentation for strategic corridors ▪ Coordinate CTP and Planning for local land use ▪ Develop problem statement vs. systems level P & N ▪ Cite data sources (2c) ▪ Document why/why not for best practices ▪ Document P & N more clearly - include why solution will provide a need another solution or mode will not

Idea Evaluation High Benefit/High Difficulty

Resources

- Broad Band specialization staff with specific training, evaluation, and rewards
- Dedicate time/positions from other DOT units to lend expertise (roadway other modes, PDEA, public involvement)
- Establish job roles/descriptions of tasks people can do
- Better recruiting of all types of degrees (biologist, planners, etc) throughout DOT
- Devote a position in roadway design to help TPB
- Training or dedicated positions with expertise in land use, other modes, public involvement, etc.
- Multi modal specialists for smaller areas transit for bike/ped elements
- Hire staff at all levels agencies
- Provide specialist staff (reduce competing work tasks); consultants/RFP; environmental Issues; public meetings; modeling; modes
- Diversify TPB staff; engineers, planners, modal specialists, PI specialists
- Devote adequate Resources to meet plan develop schedule
- Have NCDOT staff physically located throughout NC not just in Raleigh

Training

- Locals should be re-educated on the process every 2 to 3 years
- Statewide plan process, policies communicated to local officials
- Develop “certification/training for decision makers; local land use planners; resource agencies etc, and basic understanding of Transportation Planning.
- DOT needs TPB public involvement, AQ, multi modal, etc
- Continuous training for planning partners
- Education of locals on aquatic/environmental resource issues (underway)
- Create mechanism for those attendees training to be accountable (i.e. third person teach)
- DOT should have a training class for other branches tasks
- Train people (everyone in branch and locals) on how to use GIS
- Need regular training for people new MPO’s and RPO’s; the basics
- Develop training programs for major components of process (different levels)

Public Involvement

- Develop process guidelines for accommodating unique community needs/feature
- Improve DOT credibility with communities and individuals and media

Alternatives Evaluation

- Focus on 'key corridors'
 - Desired routes
 - Desired cross section

Best Practices

- Implement Best Practices
- Best Practices should be a menu, not a single force-fit practice
- Determine best standards of practice and document why/why not
- Develop Best Practice for Modeling
- Expand policies and guidelines to accommodate creative approaches

Land Use Issues

- Municipalities in all counties should have land use controls

Modeling

- Validate modeling process for "non-modelers" to improve trust
- Develop different modeling/analysis tools for different uses
- Investigate/implement use of secondary sources of model data
- Develop decision tree for modal choices

Implementation

- Determine funding gap of CTP for all modes – include maintenance and operation costs
- Legislative funding for economic development projects; should go through the planning process
- Find more creative funding options for bike/pedestrian (not just DOT)
- NCDOT stronger stand against building projects that go against adopted plan
- Find new/creative ways to fund transit options
- Regionally significant projects should be identified in the TIP
- TIP process should be better linked to LRTP
- NCAPA/NCAMPO advocate for legislative changes to land use planning requirements
- Improve linear process from planning to construction
- Recognize philosophical shift in statewide transportation plan in individual CTP's (i.e., shift from expansion to more maintenance, preservation and modernization)

Standards

- Address specific implementation policies for bike-pedestrian design needs
- Assure consistent application / dissemination of bike/ pedestrian guidelines
- Warrants need more flexibility

Toolbox

- Strengthen corridor protection tools

Data Process

- Adopt / produce easier, defensible data process
- Develop data “library” for all users that is useful for trending and analysis
- Develop a data management process for land use data
- NCDOT dollars support development of better environmental data

Documentation

- Complete CTP document before adoption
- Document everything as you go through steps with mile stones of when document sections should be written
- Document project priorities (i.e., in appropriate. 10 yr. Horizon groupings)(4d)
- Document LRTP environmental considerations
- Fully document all alternative analysis
- Define P & N at the systems planning level (with approval by resource agencies) maybe MOU/MOA which feeds into merge 1 pt.
- Document
 - Environmental constraints better
 - Involvement of agencies
 - Why eliminate alternatives (fatal flaws)
 - Document project cost estimates (How? Projected to what year?)
 - Develop useful template for meaningful documentation
 - Timely documentation of the process should be better incorporated into work plans
 - Document the entire process including AQ in a procedures manual
 - Training – need comprehensive documentation of how to do CTP/LRTP inc. flexibility and “tool box” of options
 - Throw out all TPB report structures. Start over w/redesign of multiple document(s) based upon customer input. Deadlines/milestones attached.
- Document public involvement better (ads, articles, summaries of comments, etc.)
- Complete documentation before adoption
- Set realistic deadline for reports to be completed before end of process

- Document CTP & LRTP together and before adoption
- Document at system level (TPB)
 - Environmental analysis
 - Alternatives Analysis
 - Fatal flaws
 - Community goals & objectives
 - Problem statement
 - Technical analysis
 - PI process/outcome
- Document – require technical documentation earlier in the process
- Develop P & N earlier
- Develop P & N for each system
- P & N for LRTP projects
- Include P & N in plan process, especially for 1 – 10 years of plan
- Develop and use P & N – type documentation for strategic corridors
- Coordinate CTP and Planning for local land use
- Develop problem statement vs. systems level P & N
- Cite data sources (2c)
- Document why/why not for best practices
- Document P & N more clearly - include why solution will provide a need another solution or mode will not

Idea Evaluation High Benefit/Low Difficulty

Resources

- Accountability system developed/ implemented for TPB staff
- Be more open to consultants doing some process tasks
- Regularly review Roles/ Responsibilities and identify where training is needed or others are ready to assume new tasks
- Create position for plan tracking

Training

- Train MPO's to do modeling
- Identify training needs that FHWA could assist with
- Train DOT non-TPB units, resource agencies, local staff and public to help manage expectations in basics of Transportation Planning process

Public Involvement

- Bring in national experts on public involvement to assist

Best Practices

- Develop feedback process for what TPB does or is missing
- Actively encourage/participate in “horizontal” information flow in Branch; not rely on flow of information up through management and back down

Land Use Issues

- Checks/balance system for SE future changes

Modeling

- View modeling as on-going tool development and take it out of timeline for plan updates

Environment

- Expand HQR beyond water features
- Determine environmental data that will be studied (standards) and depth based on PDEA standards
- Establish environmental layers as a standard across NCDOT

- Develop consistent environmental databases for local (land use) TPB and PDEA
- Engage environmental resource agencies in TP process
- Centralize environmental database so all data is up to date

Implementation

- FHWA provide consistent/specific guidance on LRTP
- Make CTP more usable to field staff (divisions) and other branches (facility type) (such as for driveway permits, cross sections)

Standards

- Footnote on CTP maps to refer to document
- Ensure that schedules for plan updates in adjoining areas match
- Standardize product expectations, timeframes and storage requirements (CD)
- Develop critical path diagram for model development tasks
- Identify policies that are obstacles to plan implementation

Data Process

- Projections should start with regional total, then build from ground up
- Enhance GIS line data to include highway attribute data

Idea Evaluation Low Benefit/Low Difficulty

Resources

- Purchase memory sticks for mobility of data to free space on common drives
- TPB should not jump through hoops/change work priorities to satisfy areas that procrastinate

Land Use Issues

- Limit assistance involvement with areas that don't have land use plans or controls

Idea Evaluation Low Benefit/High Difficulty

Resources

- Expand technical modeling unit to centralize process (people developing models not doing other tasks)

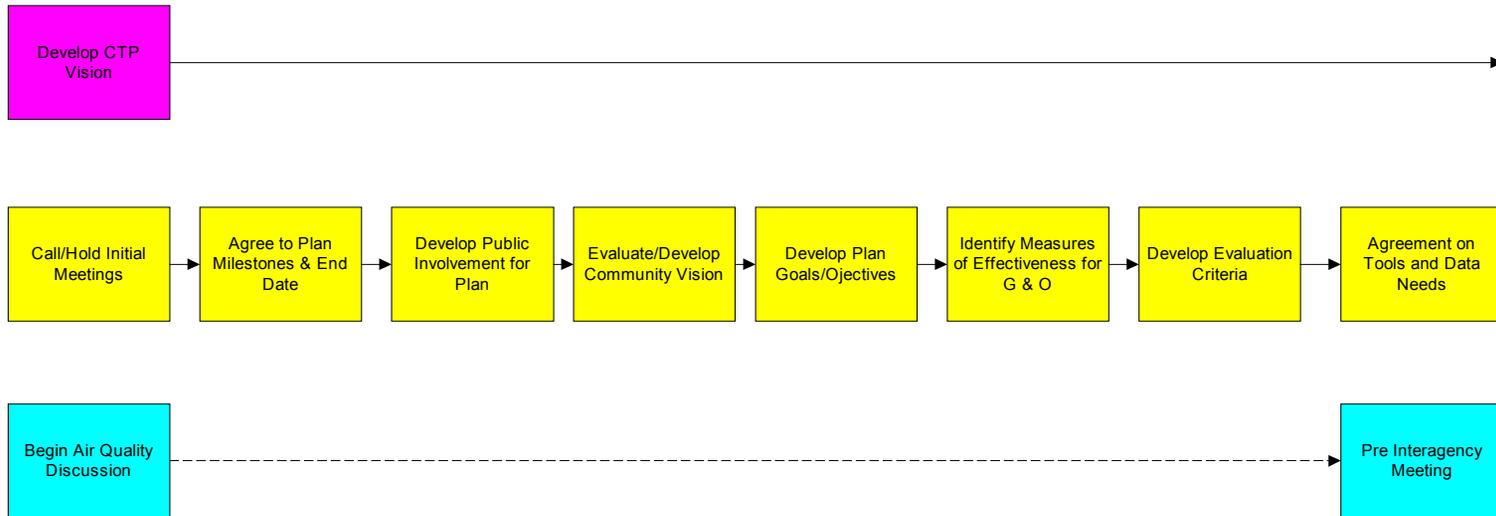
Modeling

- Creation of statewide model

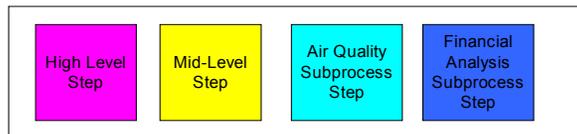
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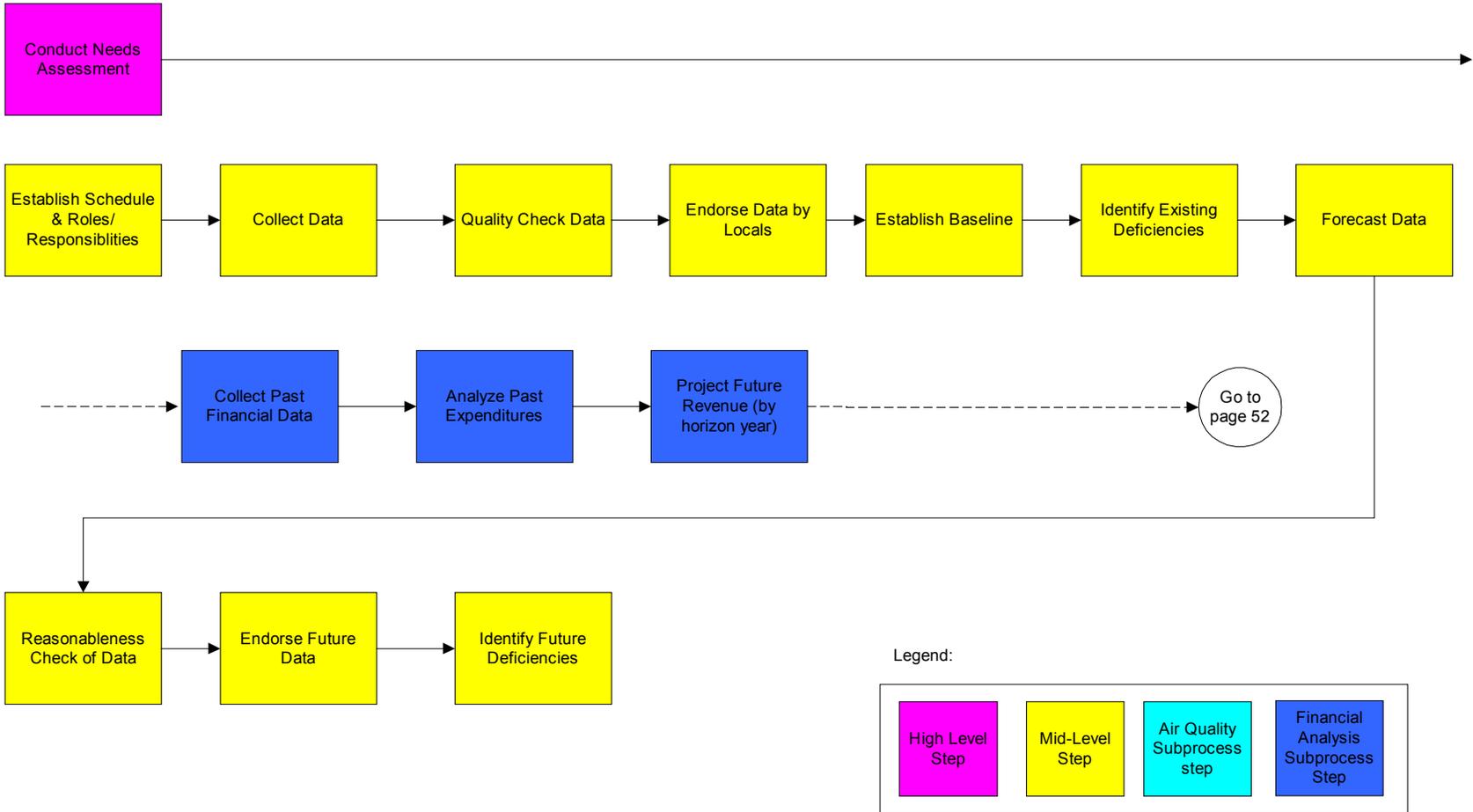
- Develop tools for freight planning

Revised Process Map

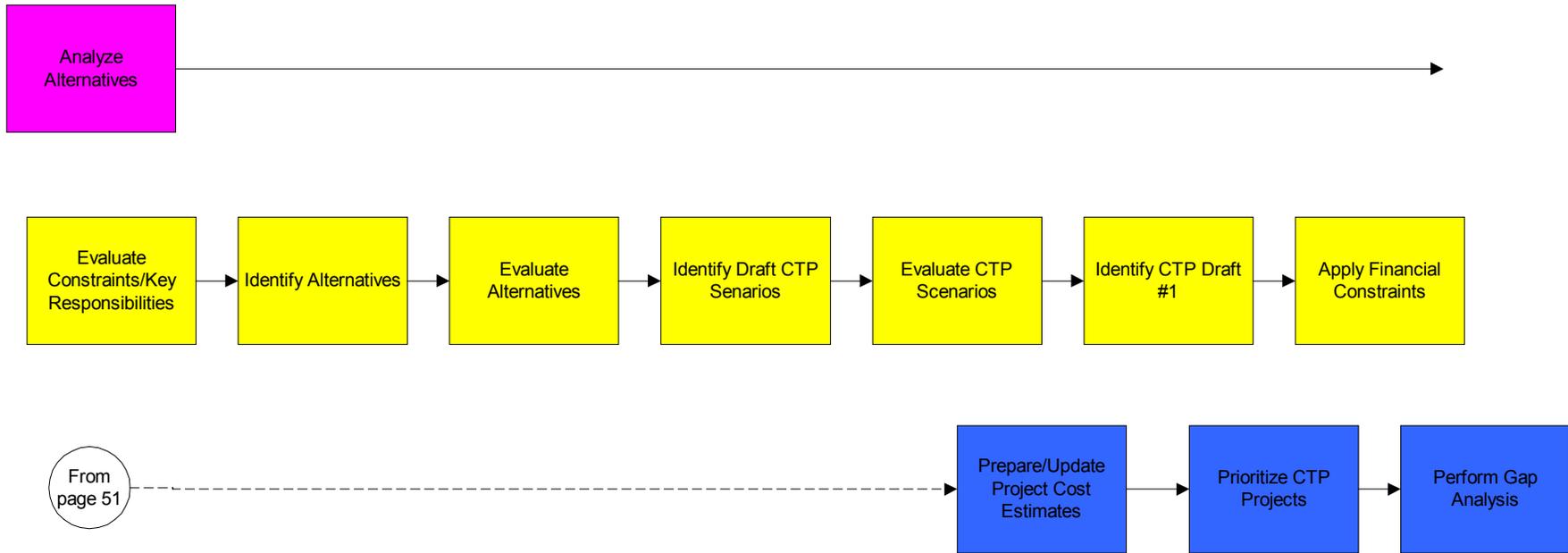


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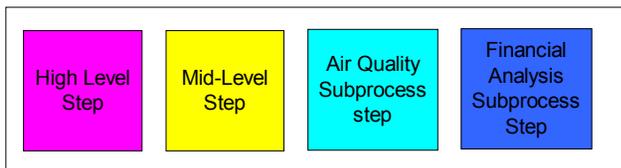




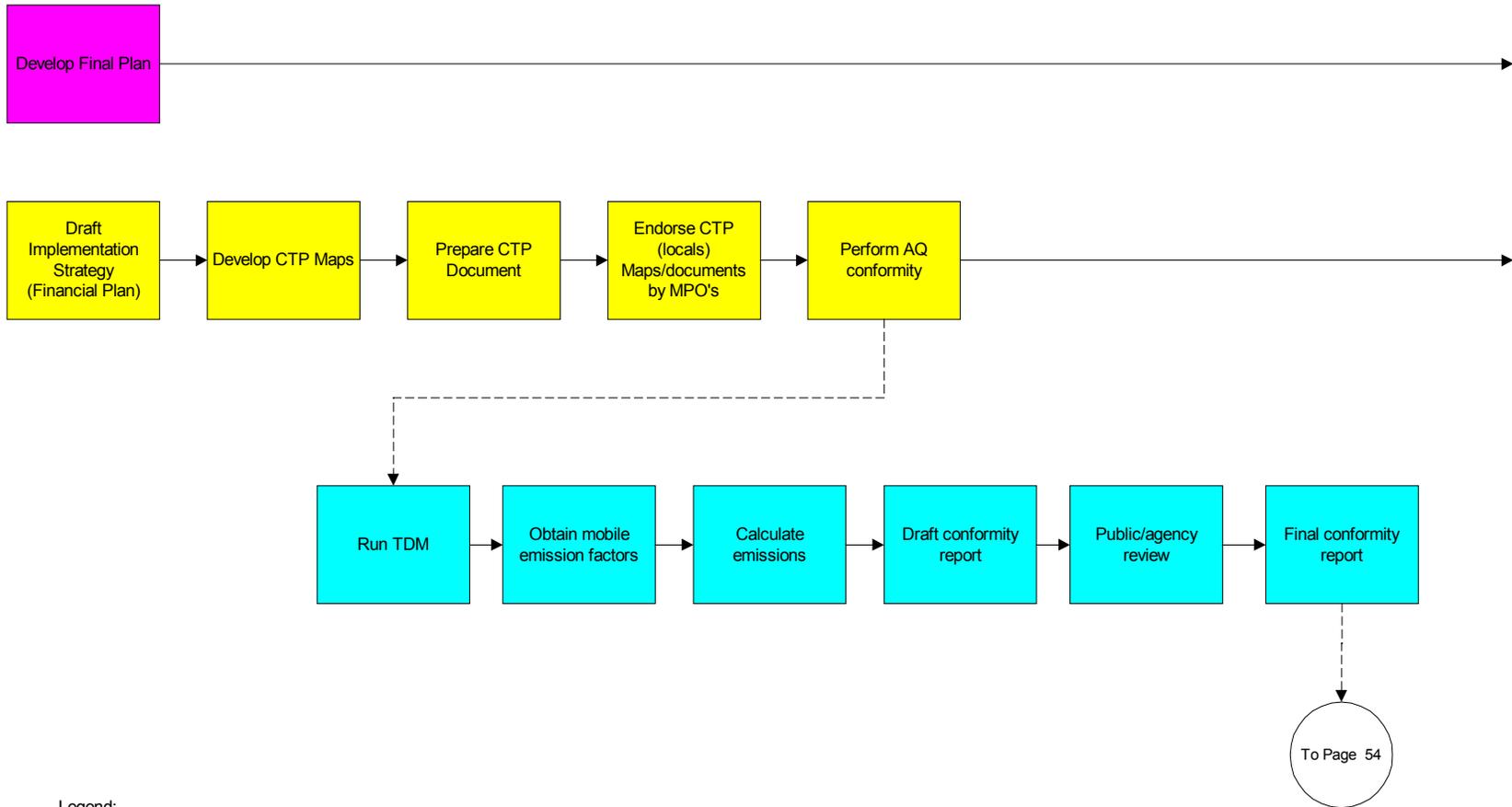
Revised Process Map



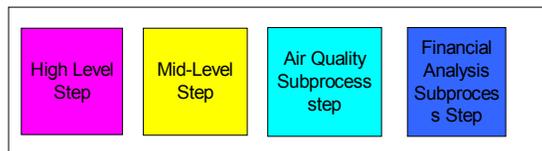
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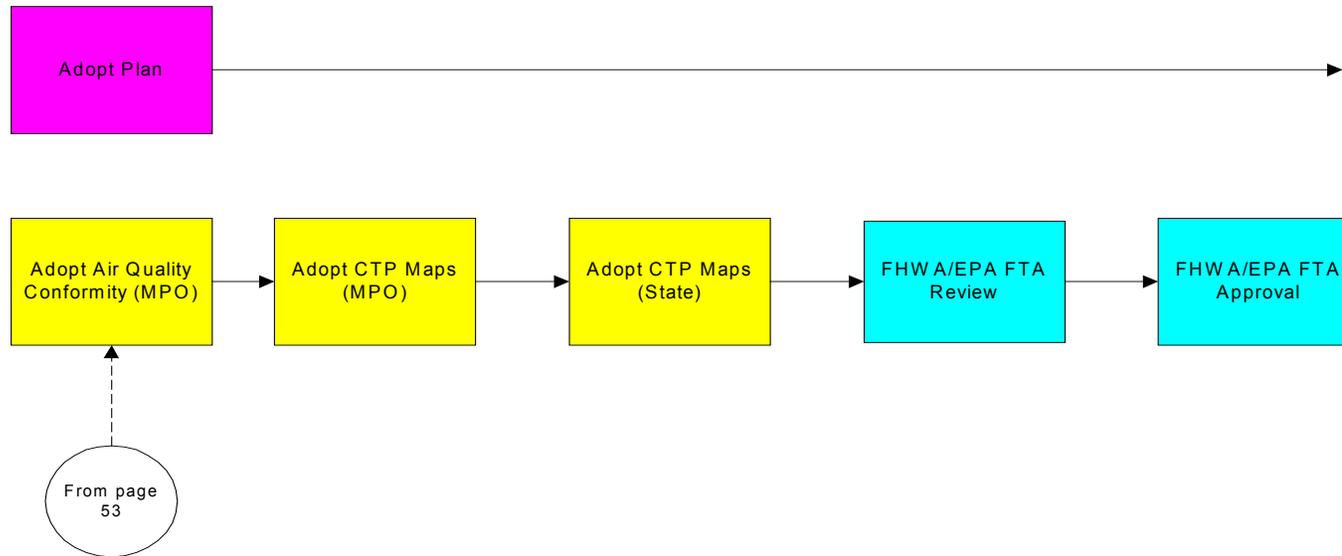
Revised Process Map



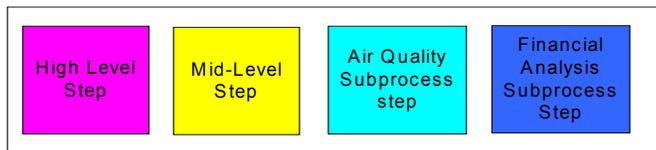
Legend:



Revised Process Map



Legend:



Assumptions

- We will develop tools we do not currently have and will be credible to partners, FHWA, EPA, resource agencies, etc.
- MPO's will agree to one document and it meets state and federal requirements
- Transit agencies and resource agencies will be willing to participate

Measures

- % of meetings resource agencies attend of those they are requested to attend
- # resource agency responses
- customer satisfaction through Customer Value Structure
- # projects programmed that are drawn from plan
- # plans that incorporate land use and multi-modal tools
- # CTP's > 10 years old (trend)
- # areas that have plans or AQ lapses
- # schedule changes related to scope change
- % of plan documents that are distributed within 60 days of endorsement
- # or % of times that an eliminated or revisited in project planning
- # or % plans locally adopted
- # of new alternatives that are identified in project development that were not considered in planning
- # of projects from a systems plan that experience community controversy during project development
- the reduction in cycle time in project development on projects from a systems plan
- # final plans match original goals/objectives
- # attendees at public involvement meetings
- # of attendees at outreach meetings
- # of non-road funded projects drawn from a systems plan
- # of times TPB must go back to write a problem statement
- # times, in MPO areas that CTP must be amended or changed to match a proposed TIP project
- Measures of effectiveness of
 - Land use
 - Multi-modal
 - TD model
- Comparison of financial projections to actual funding levels in future TIP's
- Comparison of CTP cost estimate to TIP programmed cost (inflation-adjusted)
- Comparison of CTP cost to actual construction cost (inflation-adjusted)

New Process Implementation

- Benefits
- Barriers, Risks, and Strategies
- Recommendations
- Next Steps
- High Level Implementation Plan



Benefits

Benefits to Sponsors

- Reduce workload (PDEA)
- Less community uprising
- Consistent data between branches
- More consistent product
- Save money
- More efficient program delivery
- Customer driven product
- Clear expectations of facility type
- Retention of plan knowledge through better documentation (even with staff turnover)
- Multi-modal considerations
- More community consensus
- Increased service to RPO's

Benefits to Locals (MPO/RPO)

- Improved community buy-in
- Quicker project delivery
- Better transportation planning process
- Stronger ties local priorities
- True planning process partnership
- One transportation planning process
- Better planning
- Improved emphasis on integrating all modes
- More informed public
- Customer-friendly documentation
- Emphasis on integrating land use with transportation planning process
- More complete project information for TIP development and PDEA

Benefits to PDEA and Resource Agencies

- Better documentation
 - Project need statement
 - Project cost estimates
 - Environmental screening data
 - Fatally flawed alternatives identified
 - Public involvement information
- Earlier input from resource agencies
- Earlier consideration of critical resources
- More current/regularly updated data
- Wider range of alternatives considered
- Better analysis tools for other modes
- Better local buy-in of plan recommendation
- Clearer linkage between land use and transportation plan
- Public involvement process that validates local G & O
- Reduced time for project development process

Barriers, Risks, and Strategies

- Process may take longer than expected
 - Although new planning process may take longer, overall the process is still shortened and improved
 - Build time into process for the unexpected
 - Don't set false expectations
 - Standardize process (experience) may shorten over time
 - Admit up front that as we change process, it can initially take longer and hit unanticipated barriers
- Process may take longer than legally required timeframe
 - Identify (now) points in process for potential time compression
 - For specific studies, identify where time savings may occur
 - In initial meetings identify constraints which can be placed on the study in order to meet deadline
 - Identify where outside resources could help meet deadlines
 - Prior to lapse, move projects to next phase
 - Identify "Enhancements" that can occur after legal deadlines are met; have agreement that assures it will occur
- If additional staff resources are not provided, we could fail on process implementation and other work
 - Transportation Planning Branch senior management re-prioritize tasks
 - Clearly outline staff needs
 - Request support for broad banding to retain employees
 - Contingency: plan consultant resources
- Lack of buy-in from partners, staff, and agencies
 - Engage more partners in process
 - Clearly identify direct benefits
 - Negotiate implementation period
- Training challenges on new tools
 - Dedicate resources to ensure that training levels are acceptable to all partners
 - Team approach to tool use to ensure consistency of application/ use
- May not have/cannot develop new tools
 - Use existing tools discovered through research (even if they don't fit perfectly)
 - Dedicate adequate funding to elicit assistance from outside sources to develop new tools
 - Consider revisions to process expectations if tools don't materialize
 - Focus on state of practice (instead of state of the art)

Barriers, Risks, and Strategies (continued)

- Difficulty of transitioning
 - Balance resource agencies: define timeframe for expected results
 - DOT and local staff: set phased approach for implementation
 - Have “How to” documentation/manuals and training prior to implementation
 - Ensure buy-in of all stakeholders/customers and possible sponsorship (including resource agencies, other DOTs, MPO’s and RPO’s)
 - Top-down and bottom-up buy-in of resource agencies and others
 - Test parts of new process through pilot projects
 - Sponsors unveil and continue to support throughout new process
- Creating unrealistic expectations
 - Educating of all stakeholders and customers on new process (what will and will not do)
 - Training of staff prior to implementing new tools (on use and expectations) and limitations
 - Document (and distribute) goals and limitations of new process and products
 - Acknowledge shortcomings but concentrate on success
- Process may not yield intended outcomes
 - Clearly defined products
 - Provide good guidance
 - Monitor initial studies continuously
 - Invest in tools to implement process
 - Staffing/resources should be adequate
 - Establish formal post- process evaluation of planning process and revise is warranted
- Partial implementation
 - Clearly outline benefits on entire process
 - Concentrate on discussion on entire process, not individual pieces
 - Get buy-in on entire process
 - Identify consequences of failing to implement entire process as the issue arises

Recommendations

- Pursue legislative changes that require land use planning all counties and municipalities.
- Pursue adoption of revisions to the driveway manual that connects driveway permitting to CTP.
- Open dialogue with resource agency senior management regarding dedication of resources to transportation planning process. Begin dialogue now but resources are not needed until integration project is complete.
- Resources (money and/or staff) to develop and implement new planning analysis tools.
- Pursue permanent funding for RPO's and sufficient funding from new sources for MPO's and RPO's to fulfill partnership roles and responsibilities in the new planning process.
- Support broad banding for TPB engineering classifications and initiation for planning classifications as soon as possible.
- Strongly support 5-year LRTP requirement.

High Level Implementation Plan Documentation

Goal: Useful and meaningful documentation is not consistently provided in a timely manner to meet the varied needs of our stakeholders

	Project	Champion	Team Members	Start Timeframe (in months)		
				0-6	6-12	>1yr
I.	Research and data collection: a. Identify current resources (T. Marshall) b. Identify other document/processes (i.e., other state, MPO/RPOs, etc)	TPB/FHWA	TPB/FHWA staff, MPO/RPO staff person, PDEA staff person	X		
II.	Survey a. Identify “should be users” b. Create survey c. Conduct survey d. Analyze survey results <ul style="list-style-type: none"> ▪ Compile elements ▪ Determine what’s realistic ▪ Provide feedback and meaningful negotiation 	TPB/FHWA	PD&EA, DOT Field Offices, MPO, RPO. Resource Agencies, FHWA, Local gov’t staff, Local/MPO/RPO Decision makers, TPB Staff, DOT-TIP staff, DAQ	X		
III.	Matrix – Leads to documentation structure a. List of documentation elements b. Where plugs into process c. Logical compilation of elements d. Establish roles and responsibilities	TPB/MPO/RPO	TPB/FHWA, MPO/PDEA/RPO staff		X	
IV.	Detailed outline a. Final development of structure b. Affirm with stakeholders	TPB/MPO/RPO	TPB/FHWA, MPO/PDEA/RPO staff			X
V.	Templates a. Design and write template b. Define minimum content requirements c. Formal review process (i.e., TRB management, MPO/RPO, FHWA)	TPB/MPO/RPO	TPB/FHWA, MPO/PDEA/RPO staff			X
VI.	Implementation a. Develop TPB milestone/checklist b. Educate writers/users	TPB/MPO/RPO	TPB/FHWA, MPO/PDEA/RPO staff			X

High Level Implementation Plan Database

Goal: Develop and implement a process to improve data standards and access

	Project	Champion	Team Members	Start Timeframe (in months)		
				0-6	6-12	>1yr
	Inventory available data from NCDOT, resource agencies, local partners, and other government agencies	TPB and PD&EA, Senior management	TPB (GIS) FHWA, PD&EA, MPO/RPO/Local Government, Resource Agencies	X		
	Determine data needs and perform gap analysis	TPB and PD&EA, Senior management	TPB (GIS) FHWA, PD&EA, MPO/RPO/Local Government, Resource Agencies	X		
	Establish acceptable data and technology standards	TPB and PD&EA, Senior management	TPB (GIS) FHWA, PD&EA, MPO/RPO/Local Government, Resource Agencies	X		
	Dedicate adequate resources to build, maintain, and manage data library	TPB and PD&EA, Senior management	TPB (GIS) FHWA, PD&EA, MPO/RPO/Local Government, Resource Agencies		X	
	Establish method for data sharing between all planning partners	TPB and PD&EA, Senior management	TPB (GIS) FHWA, PD&EA, MPO/RPO/Local Government, Resource Agencies			X

High Level Implementation Plan Environment

Goal: Develop a process to integrate environmental considerations into the CTP

	Project	Champion	Team Members	Start Timeframe (in months)		
				0-6	6-12	>1yr
	Identify and standardize environmental data to be used in planning process	TPB and PD&EA Senior management, MPO/RPO representative	TPB, PD&EA (Jay McInnis, MPO/RPO, Natural Heritage Program (Linda Pearson), DOT-GIS, DWQ		X	
	Create centralized database as part of the data library	TPB and PD&EA Senior management, MPO/RPO representative	TPB, PD&EA (Jay McInnis, MPO/RPO, Natural Heritage Program (Linda Pearson), DOT-GIS, DWQ			X
	Develop methods and tools to use and analyze the data	TPB and PD&EA Senior management, MPO/RPO representative	TPB, PD&EA, MPO/RPO, Resource Agencies (as appropriate)			X
	Complete high quality resource identification and method for determining fatal flaws	TPB and PD&EA Senior management, MPO/RPO representative	TPB, PD&EA, MPO/RPO, Resource Agencies			X
	Partner with agencies to determine level of involvement, personnel resources, to commit, and how to integrate their interests into the planning process	TPB and PD&EA Senior management, MPO/RPO representative	TPB, PD&EA, MPO/RPO, Resource Agencies		X	
	Dedicate adequate resources to maintain and manage environmental data library	TPB and PD&EA Senior management, MPO/RPO representative	TPB, PD&EA, MPO/RPO, Resource Agencies			

High Level Implementation Plan Resources

Goal: Ensure adequate resources to implement CTP

	Project	Champion	Team Members	Start Timeframe (in months)		
				0-6	6-12	>1yr
	Identify resources from CTP (internal and external)	Management Team	Management Team		X	
	Evaluate existing structure	Management Team	Management Team		X	
	Conduct gap analysis	Management Team	Management Team		X	
	Find necessary resources to close gap (hire, contract, partner, reallocate)	Management Team and Roger Sheats	Management Team			X
	Monitor/ feedback loop	Management Team or assigned	Management Team			X

High Level Implementation Plan Training

Goal: Implement a training and education program that focuses on the different needs of:

- 1) TPB staff
- 2) NCDOT outside TPB
- 3) LPO staff
- 4) Local government staff
- 5) Local government officials

	Project	Champion	Team Members	Start Timeframe (in months)		
				0-6	6-12	>1yr
	Develop draft plan ▪ Survey users	Training Coordinator Debi	TPB, MPO/RPO, Resource Agency	X		
	Develop matrix to identify needs	Training Coordinator Debi	Assigned (TPB)	X		
	Review existing training and evaluate needs (gap analysis)	Training Coordinator Debi	Assigned (TPB)	X		
	Develop training product and promote	Training Coordinator Debi	Consultant		X	
	Train and re-evaluate	Training Coordinator Debi	Consultant and TPB			X

High Level Implementation Plan Best Practices

Goal: Form TPB Team to guide development of “best practices” for:

- TDM Development
- Public Involvement
- Financial Analysis
- Multi-modal analysis
- Defining adequate CTP
- Data collection and maintenance
- Systems-level environmental analysis

	Project	Champion	Team Members	Start Timeframe (in months)		
				0-6	6-12	>1yr
	Establish TPB team to guide development of “best practices” for comprehensive transportation planning *	Katherine English	Five TPB staff (BP Team)	X		
	Research and compile “best practices” from around country and current planning practices in North Carolina *	Katherine English	BP Team	X		
	Develop and document “best practices” to comprehensive transportation planning *	Katherine English	BP Team, other experts (internal and external)		X	
	Review draft document; address comments and finalize (includes process for maintaining and updating)	Mike Bruff	BP Team, planning partners (TPB staff, MPO, RPO)			X
	Implement “best practices”	Katherine English	BP Team			X
	Training and Monitoring of “best practices”	Katherine English	Planning Partners			X

* Coordination with planning partners (TPB staff, MPO, RPO) is part of step.

High Level Implementation Plan Toolbox

Goal: Form TPB Team to guide development of “technical tools” for:

- TDM
- Public Involvement
- Financial Analysis
- Multi-modal
- Environmental screening
- Land Use

	Project	Champion	Team Members	Start Timeframe (in months)		
				0-6	6-12	>1yr
	Establish TPB Team to guide toolbox development and create schedule	Team leader (chosen by TPB management)	To be selected	X		
	Research and compile available tools	Team leader (chosen by TPB management)	To be selected	X		
	Develop and document (including financial commitment) recommend tools for use	Team leader (chosen by TPB management)	To be selected		X	
	Review and comment	Mike Bruff	Team, Planning Partners			X
	Complete final selection and link to “best practices”	Team Leader	Team			X
	Training and Monitoring	Team Leader	Planning Partners			X

Next steps

Task	Who is accountable?
1. Create new process cost-time profile	Dan Thomas
2. Producing document to send to FHWA on outcomes	Janet D'Ignazio and Julie Hunkins
3. Validate customer value structures for new process	Andy Grzymiski , Hannah Cockburn, and Beverly Williams
4. Sponsor meeting	Mike Bruff and Dan Thomas
5. Workshops with MPO/RPO's	
6. Workshop/meeting with staff	
7. Develop change management strategy	
8. Establish sub-processes <ul style="list-style-type: none"> ▪ Environmental Data ▪ Stakeholder Involvement ▪ Documentation ▪ Multi-modal ▪ TDM ▪ Land Use 	<i>MM</i> : Janet D'Ignazio and Julie Hunkins <i>TDM</i> : Core Team, Leta Hunsinger, and Rhett Fussell <i>Land Use</i> : Hannah Cockburn <i>Environmental Data, Stakeholder Involvement, Documentation, EEP</i> : Janet D'Ignazio and Julie Hunkins
9. Implementation Management Plan	Team Leaders and Mike Bruff
10. Where and when are TPB/CTP/LRTP products produced? Are they in the right place for customers?	Integration Team
11. Produce booklet –documentation of workshop and Review	<i>Produce</i> : Odessa McGlown and Sarah Mitchell <i>Review</i> : Team

Parking Lot Issues

- Problem Statements on deficiencies
- Traffic Forecasts
- Disconnect between programming and Air Quality
- Merger Pt. 2 should be concurred on major new location projects during the long-range planning process
- Feasibility study – part of planning process could substitute for current FS process; incorporate the feasibility studies process into systems planning