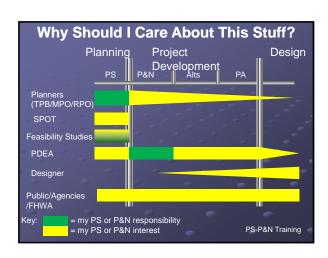
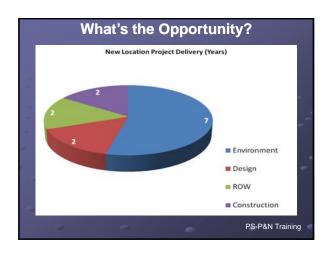


PS-P&N Learning Outcomes Be Able to Craft A Problem Statement Be Able to Craft a Purpose & Need Statement Understand the appropriate use of each



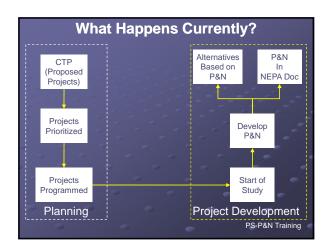
PS-P&N Training Outline Introduction PS Basics- why, what, who, when, how P&N Basics- why, what, who, when, how Crafting a PS or P&N Wrap Up

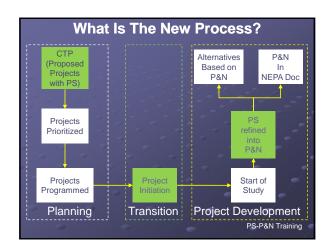


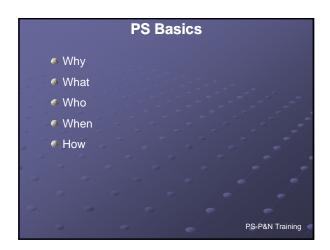


Who Supports This Initiative? Interagency Leadership Team (ILT) •NCDOT •FHWA •USACOE •DENR •USFWS •EPA •National Marine Fisheries Service •Dept. of Commerce •Dept. of Cultural Resources •NC WRC

PS-P&N Relation to Other Initiatives Integration Effort to improve the linkage of long range planning to project development Streamlining Effort to examine the Merger process to determine how it can be conducted more efficiently PS-P&N Training







PS Basics WHY, what, who, when, how	
Purpose	
 Communicate the context, concept and justification for proposed projects (all modes) in a CTP 	
Intent	5
Form substantial core of P&N	7
Save time in preparing and/or agreeing to the purpose and need in project development	
PS-P&N Tr	aining

PS Basics

WHY, what, who, when, how

FHWA "Linking Planning & NEPA"

- SAFETEA-LU: Statewide Transportation Planning and Metropolitan Transportation Planning (23 USC Section 134, 135)
- Appendix A of 23 CFR Part 450: Linking the Transportation Planning and NEPA Processes
- Environment and Planning Linkage
 Processes Legal Guidance

PS-P&N Training

PS Basics

WHY, what, who, when, how

23 CFR 450.212, .318, & Appendix A

"The results or decisions of these transportation planning studies may be used as part of the overall project development process consistent with NEPA..."

- P&N or goals & objective statements
- General travel corridor and/ or mode(s) definition
- Basic description of environmental setting
- Preliminary identification of environmental impacts & mitigation

PS-P&N Training

PS Basics

why, WHAT, who, when, how

- Full PS
- Minimum PS
- PS that References a P&N Underway or Completed

Components of a Full PS Identified Problem Justification of Need Community Vision and Problem History CTP Project Proposal Project Description and Overview Natural & Human Environmental Context Relationship to Land Use Plans Linkages to Other Plans and Proposed Project History Multi-modal Considerations Public/ Stakeholder Involvement

Components of a Minimum PS Include:

- Concise description of the problem
- Primary purpose(s) & goal(s) to be accomplished
- Describe the concept of the proposed project
- Briefly, any known supporting information (e.g. other applicable elements from Full PS)

PS-P&N Training

PS Referencing P&N Underway

Include:

- Concise description of the primary goals the proposed project is expected to accomplish
- Summary of the concept and purpose
- A reference to the P&N underway

PS Basics

why, WHAT, who, when, how

Criteria for selecting projects for Full PS:

- Time Frame
 - 5-year Work Program and STIP*
 - 10-year Work Program
 - Closest interim years, project priorities list
- Scope
 - major new location, major multi-lane widening, major projects other modes

PS-P&N Training

PS Basics

why, what, WHO, when, how

- Developed by NCDOT-TPB or MPOs, in consultation with RPOs & municipal/ county staff
- Full PS: TPB will request review by PDEA
- Coordinate with Agencies & Public as part of the CTP process

PS-P&N Training

PS Basics

why, what, who, WHEN, how

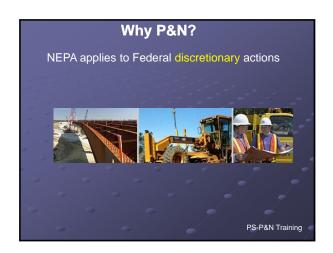
- During CTP development (documented as part of CTP report)
- Upon Request by PDEA (if CTP has less than full PS & for areas TPB has provided planning assistance in the past)

PS Basics why, what, who, when, Transfer & Use For CTP: Conceptualize/ document problems & Link problems to proposed solutions For prioritization: informs relative needs For project initiation: provides PDEA with project information For P&N: foundation of P&N PS-P&N Training **PS Review** Why What Who When How PS-P&N Training

"There's more than one way to look at a problem, and they all may be right" --Norman Schwarzkopf PS-P&N Training

P&N Basics Why What Who When How

Why P&N? National Environmental Policy Act (NEPA) "...To declare a national policy which will encourage productive and enjoyable harmony between man and his environment..." PS-P&N Training



Why P&N? CEQ regulations for an EIS require: "The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." CEQ regulations for an EA require: "Shall include brief discussions of the need for the proposal..." PS-P&N Training **What: Need** Describes key problem(s) & causes Provides the factual & quantifiable foundation for the purpose statement Establishes evidence of current or future transportation problems or deficiencies Establishes and justifies logical termini PS-P&N Training **What: Purpose**

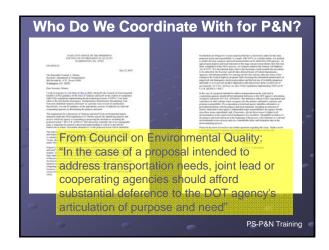
- States clearly and succinctly why the project is being proposed
- Articulates positive intended outcomes
- Presents objectives to address the need

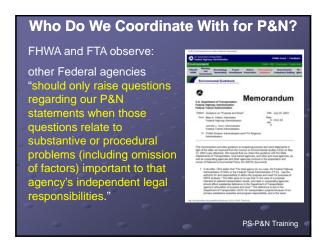
What: Primary v. Secondary Purpose To communicate the full range of factors considered in decision-making: A primary purpose is a "driver" of the project (a fundamental reason for the project) A secondary purpose ("other desirable outcome") is desirable, but not a core purpose

	Whic	h alterna	Exercis		P&N?	
		PP#1	PP#2	ODO#1	ODO#2	
	Alt 1	N	Υ	Υ	N	2
3	Alt 2	Y	Y	N	Y	
	Alt 3	Y	Y	N	N	
O	Alt 4	Y	N	Y	Y	
		9			PS-P&N Tra	ining

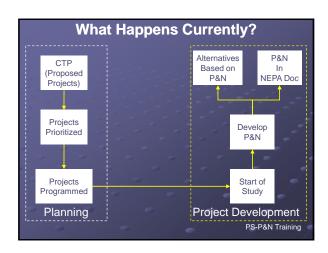
What: Purpose
Avoid stating the purpose as a solution:
"The purpose is to widen the road to 4 lanes"
"The purpose is to replace the bridge"
Avoid the "kitchen sink" approach
70 70 V
PS-P&N Training

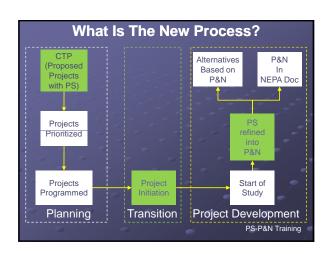
Who Develops P&N? Responsibility rests with the lead Federal agency preparing the NEPA document For Federal-aid projects, the lead Federal agency is FHWA (NCDOT through Stewardship Agreement) PS-P&N Training Who Do We Coordinate With for P&N? CEQ regulations: no requirement for agencies/public Scoping: forum for agencies/public input SAFETEA-LU Section 6002: "opportunity for involvement" for agencies/public PS-P&N Training Who Do We Coordinate With for P&N? SAFETEA-LU Section 6002: joint lead agencies (JLA) share FHWA's authority to define the P&N Disagreement between JLA must be resolved JLA consider input from agencies/public, but ultimately decide on P&N PS-P&N Training

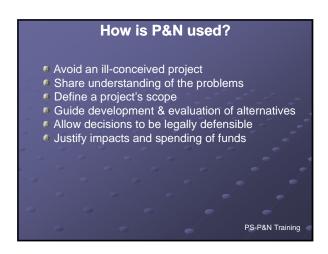




The Merger process calls for "concurrence" by all agencies represented on individual project teams at various environmental
The state of the s
milestones (with P&N being the first milestone)
"Concurrence" is defined as:
"I do not object to the proposed action based on the laws and regulations of my program
and agency." PS-P&N Training







P&N Review	
Why	
WhatWho	·
When	
• How	
PS-P&N Training	
PS-P&N: What's In It For Me?	
Citizens	
Local Planner (MPO/RPO)NCDOT TPB	
Funding Decision-makers	
NCDOT Project ManagerAgency	
	·
PS-P&N Training	
O- What's The Difference O	
So What's The Difference?	
 Data: possible differences in level of detail 	
and/ or age Public/ Agency Involvement: only required	
for P&N for EIS, no formal agreement or concurrence on PS	
PS contains additional information, particularly the CTP Project Proposal section	
particularly the OTT Project Proposal section	
PS-P&N Training	

Crafting a PS-P&N Statement Get SMART! Specific Measurable Agreed Realistic Time-bound PS-P&N Training

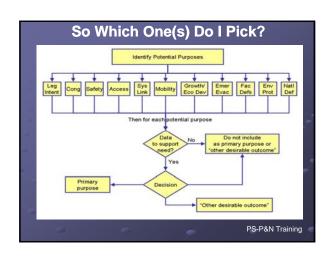
Exercise Assess these PS-P&N Purposes (use the SMART principles)

- The purpose is to reduce congestion
- The purpose is to widen the road
- The purpose is to provide a travel speed of at least 45 mph in the design year

PS-P&N Training

Questions?

- "Always get married early in the morning. That way, if it doesn't work out, you haven't wasted a whole day"
- --Mickey Rooney
- "Always get P&N early in the process. That way, if it doesn't work out, you haven't wasted a couple of years"
- --unknown







Congestion

What is Congestion?

- TRB: "Travel time in excess of that normally incurred under light or free-flow conditions"
- Wikipedia: "a state of excessive accumulation or overfilling or overcrowding"
- Dictionary.com: "overcrowding, clogging"

Find a definition for your project!

If you can't define it, you won't know if you've achieved it!

PS-P&N Training

Congestion

Possible Sources for Definition:

- MPO LRTP
- TMA CMP
- CTP
- National Guidelines
- State Guidelines/Standards/Policies/Plans
- Highway Capacity Manual
- FHWA NC Division office determinations
- Local government standards/policies/guidelines

PS-P&N Training

Congestion

Example Performance Measures:

- Speed (peak hour/period)
- Delay (peak hour/period)
- LOS (peak hour/period)
- V/C Ratio (peak hour/period)
- VMT
- Density/Headway
- Signal Cycle Failure
- Queue Length
- Vehicle Hours of Travel

-		
_		

Congestion

Purpose: "To improve the capacity of existing I-240 west of Asheville to accommodate the existing and forecasted (2030 design year) traffic in this growing area."

Performance Criteria: "since the project will be part of the Interstate System, it should be designed to achieve LOS D or better for the type and volumes of traffic anticipated for the twenty-year period beyond the time construction is authorized by FHWA"

PS-P&N Training

Congestion Source: "NCDOT Policy on Desirable Levels of Service for De descripto de la como de procedente de la com-State Highway System Streets and Highways in Urban Areas" HHH (1997)Avg. Speed (suburban) Avg. Speed (Intermediate) Avg. Speed (CBD) Primary 50-60 50-55 45-55 Freeway PS-P&N Training

Congestion

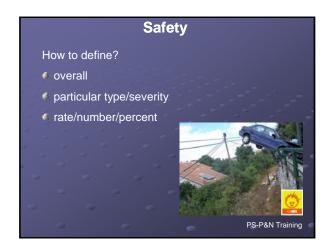
Rate these examples (Good, Bad, OK)

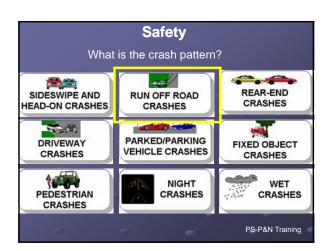
- The purpose is to widen US 5 to six lanes.
- The purpose is to eliminate congestion on US 5.
- The purpose is to reduce congestion on US 5.
- The purpose is to achieve LOS D on US 5.
- The purpose is to achieve a minimum travel speed of 45 mph in the design year for US 5.



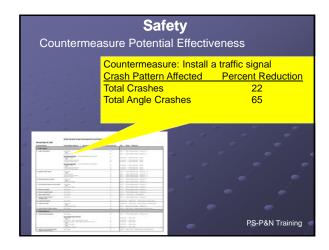






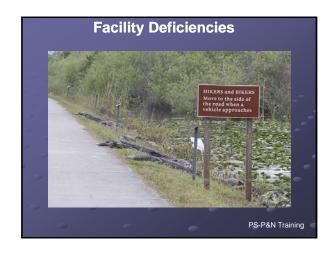


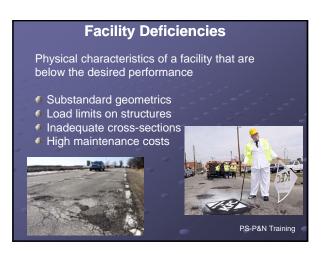
	Safety
Possible Cause	<u>Countermeasure</u>
Slippery Pavement	Overlay existing pavement
	Provide adequate drainage
	Groove existing pavement
	Reduce speed limit
	"Slippery When Wet" signs
Poor Delineation	Install pavement markings
	Install roadside delineators
	Install advance warning signs
	PS-P&N Training



Safety: Do's	and Don'ts
Do consult w/ NCDOT Safe	ety Planning Group
 Do base analysis on accep practices 	ted engineering
	DONT'T DRINK AND DRIVE
 Don't include safety w/o do 	cumented crash data
Don't add safety because it	t "sounds good"
Don't add safety to increase	e justification
Don't forget to consider unit	ntended consequences PS-P&N Training

Rate these examples (Good, Bad, OK) The purpose is to improve safety on US 5. The purpose is to reduce crashes on US 5. The purpose is to reduce angle crashes on US 5. The purpose is to eliminate crashes on US 5. The purpose is to achieve a minimum 20% reduction of crashes on US 5.







Facility Deficiencies

Rate these examples (Good, Bad, OK)

- The purpose of this project is to eliminate the "deficient" rating of the bridge.
- The purpose is to replace the bridge.
- The purpose of this project is to achieve minimum acceptable pavement standards.
- The purpose is to bring the roadway geometry up to current design standards.



Access	
Assume a congested two-lane undivide A four-lane divided facility is proposed	d road
Is access improved? For which users? Is access restricted? For which users?	
Need to define access!	
	PS-P&N Training



Access For an Interstate project: Operation and safety is paramount New access points will never improve the operation and safety of the Interstate Do not propose access as a primary purpose or "other desirable outcome"

Access For non-Interstate projects: Determine whether access is the root cause of the problem (usually it's congestion or facilitating economic development) PS-P&N Training

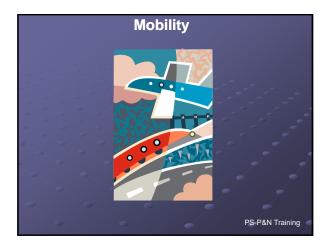
Access Rate these examples (Good, Bad, OK) The purpose is to improve access on I-40. The purpose is to increase accessibility to RTP. The purpose is to provide transportation access to the proposed business park.



System Linkage
Definition
Linking two or more:
 Existing transportation facilities
Modal facilities
 Geographic areas
 Regional traffic generators
DO DON Training
PS-P&N Training

System Linkage Rate these examples (Good, Bad, OK) The purpose is to link I-40 and I-74. The purpose is to link the roadway network with the proposed passenger rail station. The purpose is to link the mainland transportation system with the Outer Banks transportation system.

PS-P&N Training



What is Mobility? Connecting more people and vehicles in less time with their work, school, community services, marketplaces, and each other FHWA Planning Glossary: "the ability to move or be moved from place to place" Movement of people...

Mobility

What is Mobility?

- Connecting more people and vehicles in less time with their work, school, community services, marketplaces, and each other
- FHWA Planning Glossary: "the ability to move or be moved from place to place"
- Movement of people and goods
- Other?

PS-P&N Training

Mobility

Identify sources to support mobility in P&N:

- Long Range Transportation Plan/ Comprehensive Transportation Plan
- State transportation plans
- Local government transportation plans

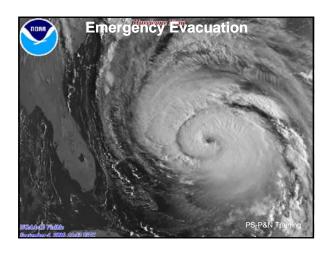


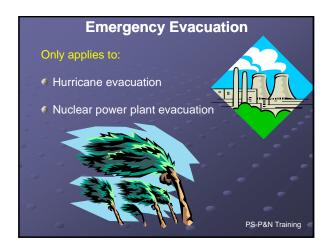
PS-P&N Training

Mobility

Rate these examples (Good, Bad, OK)

- The purpose is to improve the mobility of freight
- The purpose is to improve the mobility along Corridor X
- The purpose of this project is to improve mobility
- The purpose is to improve the mobility of motorized vehicles along Corridor X during the PM peak period*





Emergency Evacuation		
When considering as a primary purpose, the following must be documented:		
 Adopted emergency evacuation plan 		
 Location is on an identified evacuation route Scope addresses all relevant needs for successful evacuation 		
PS-P&N Training		

Emergency Evacuation Identify total v. partial evacuation need Don't forget about: Feeder & Receiver routes Disabled vehicles Motorist facilities (gas, restrooms, food, etc.) PS-P&N Training

Emergency Evacuation

Rate these examples (Good, Bad, OK)

- The purpose is to improve hurricane evacuation.
- The purpose is to achieve the 18-hour standard for hurricane evacuation of Pea Island.
- The purpose is to reduce hurricane evacuation clearance times for Pea Island.
- The purpose is to widen the intersection for hurricane evacuation.

PS-P&N Training

Questions?

"Creative minds have always been known to survive any kind of bad training" --Anna Freud

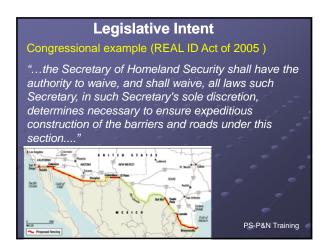
Possible Purposes Transportation Other Goals/Objectives Congestion Legislative Intent Safety Environmental Protection Facility Deficiencies Growth/Economic Development Access National Defense/Security System Linkage Mobility Emergency Evacuation



Legislative Intent Project-specific legislation does not necessarily determine the project purpose Lead agency still must exercise judgment in the NEPA process when deciding if and how to incorporate legislative direction into the purpose Unless legislative intent exempts FHWA from compliance with relevant laws (e.g. NEPA), legislative intent cannot be used as the sole reason for directing decisions on the project

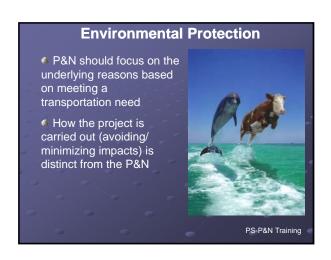
Legislative Intent			
Congressional example (from SAFETEA-LU)			
"Environmental studies and construction of U.S. 74 Monroe Bypass Extension"			
	PS-P&N Training		

Legislative Intent Congressional example (HR 105-504) "Trappers Loop connector Road- Provides that actions related to construction of the Trappers Loop connector Road that are undertaken by agencies or entities other than the Forest Service are deemed to be nondiscretionary actions authorized and directed by Congress…"



Legislative Intent NC General Assembly examples "[to construct a new toll bridge] of more than two miles in length going from the mainland to a peninsula bordering the State of Virginia." (NCGS 136-89.183(a)(2))



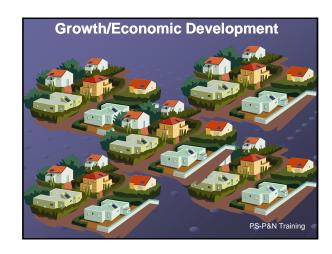


Environmental Protection "EO 13274 Task Force on Purpose and Need": "for the bulk of transportation projects, most staff across Federal agencies agreed that although environmental protection and community enhancement are important goals, these issues should not be a part of the purpose and need statement itself." PS-P&N Training **Environmental Protection** Protected Living Marine Resources Program "The USCG proposes this action to aid in the fulfillment of its missions, including protection of the environment, while fulfilling USCG obligations to protect listed species" PS-P&N Training **Environmental Protection** Rate these examples (Good, Bad, OK) • The purpose is to protect the environment. • The purpose is to reduce environmental impacts from US 5. The purpose is to protect habitat for the dwarf wedgemussel for impacts to the species associated with future Federal-aid highway projects.

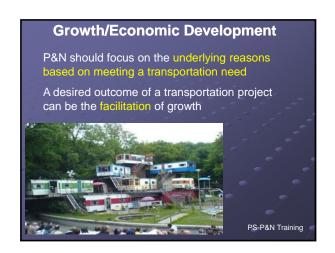
The purpose is to mitigate for environmental

PS-P&N Training

impacts



Public infrastructure (e.g. water, sewer, schools & transportation) and other considerations (e.g. tax rates, available workforce, available land and/or buildings, real estate values) collectively help determine how and where a community will grow and prosper economically



Example Language from SAFETEA-LU: "Transportation Improvements at Piedmont Triad Research Park, Winston-Salem, NC" PIEDMONT TRIAD RESEARCH PARK WHAT DEPARTMENT TRIAD RESEARCH PARK

Growth/Economic Development Example Original Purpose language: "The Park's primary purpose and need is to provide the Piedmont Triad with a new biotechnology employment sector to replace jobs eliminated by tobacco and textile manufacturing' PIEDMONT TRIAD RESEARCH PARK TRIADING PS-P&N Training

Growth/Economic Development Example Revised Purpose language: "The purpose of the project is to improve connectivity, north-south traffic capacity and access to property between Stadium Drive and Third Street near the downtown Winston-Salem CBD" PIEDMONT TRIAD RESEARCH PARK PS-P&N Training

Growth/Economic Development

Rate these examples (Good, Bad, OK)

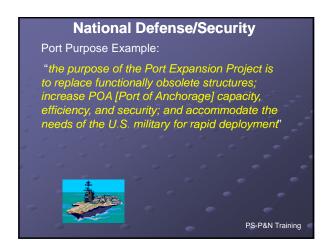
- The purpose of the project is to promote growth/land use.
- The purpose is to provide needed transportation infrastructure to support community growth objectives as identified in [title of a plan].
- The purpose is to provide needed transportation infrastructure to support community growth objectives for the US 5 corridor, as identified in [title of a plan].

PS-P&N Training

National Defense/Security Highway Rail Ports Installations Fort Bragg The Airborne Special Operations Torees

National Defense/Se	curity
Strategic Highway Network (ST	TRAHNET)
Ensure the defense readiness capa highway infrastructure and establish DOD uses the public highway system.	h policy on how
National Highway System. North Carolina	PS-P&N Training







National Defense/Security Example Need from DOD "WHEREAS, Camp PS-P&N Training

National Defense/Security

Installation Purpose Example:

The DOD eliminated public access to Beulah Street and Woodlawn Road within Fort Belvoir following events of 9.11.01

"The purpose...is to replace the once-public access provided by VA Route 618 (Woodlawn Road) and VA Route 613 (Beulah Street) between U.S. Route 1 and VA Route 611 (Telegraph Road)...The project purpose is to offer replacement connectivity compatible with force protection concerns."

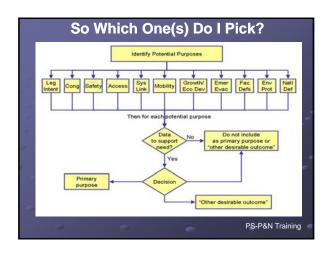
PS-P&N Training

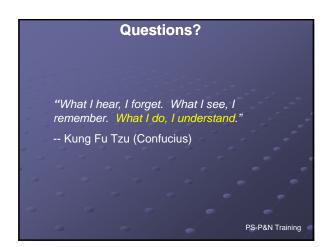
So Which One(s) Do I Pick?

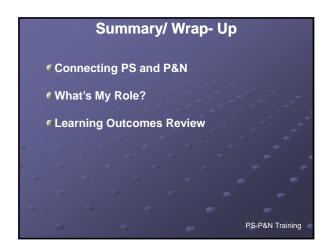
- Understand how the project was conceived
- Develop a range of potential purposes
- Analyze each potential purpose to determine if there is a well-defined and well-supported need
- Choose one:

 - primary purpose"other desirable outcome"
 - do not include

Note: there needs to be at least one primary purpose and all it takes to justify a project is one primary purpose







Resources	
NCDOT Integration (includes PS Guidance, P&N Guidance, PS FAQs): www.ncdot.org/doh/preconstruct/tpb/IP/default.html	
PS-P&N Training	