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Section 1309 of the Transportation Equity Act for the 21st Century (TEA-21) is intended to promote streamlining in the environmental review processes for transportation project development. Environmental streamlining refers to various processes, interagency coordination, technology and communications tools used to improve transportation project development by reducing project delays, duplicated efforts, and increased costs associated with environmental reviews. This research project examined the environmental clearance process at the Texas Department of Transportation (TxDOT), its transportation development partners, and other state departments of transportation (DOTs) in order to identify opportunities and examples of streamlining. The research results were developed into a guidebook for use in streamlining the project development process at TxDOT.

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# ENVIRONMENTAL STREAMLINING PROCESSES

by

John H. Overman, A.I.C.P.
Associate Research Scientist
Texas Transportation Institute

and

Kimberly L. Phillips, RLA
Associate Transportation Researcher
Texas Transportation Institute

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# CHAPTER ONE – INTRODUCTION

## BACKGROUND

Section 1309 of the Transportation Equity Act for the 21st Century (TEA-21) is intended to promote streamlining in the environmental review processes for transportation project development. Environmental streamlining refers to various processes, interagency coordination, technologies, and communications tools used to improve transportation project development by reducing project delays, duplicated efforts, and increased costs associated with environmental reviews. This research project examined the environmental clearance process at the Texas Department of Transportation (TxDOT), its transportation development partners, and other state departments of transportation (DOTs) in order to identify opportunities and examples of streamlining. The research results were developed into a guidebook for use in streamlining the project development process at TxDOT.

### Research Objectives

TxDOT undertook this research project to encourage environmental streamlining within the department. The overall objective of the research project was to develop an environmental streamlining guidebook compliance manual to encourage continued streamlining efforts among environmental staff. More specifically, the researchers focused on the following objectives:

- identify and summarize environmental streamlining practices at other state DOTs,
- identify environmental streamlining issues and obstacles and provide strategies to address improvement,
- prepare an environmental streamlining guidebook, and
- provide recommendations.

### Information Resources

The researchers reviewed guidance and policy documents from TxDOT, the Federal Highway Administration (FHWA), metropolitan planning organizations (MPOs), and

environmental resource agencies. Researchers also conducted a review of environmental streamlining efforts at various state DOTs including Florida, New York, Oregon, Pennsylvania, North Carolina, and Washington. Researchers limited the information to websites and published transportation literature.

### Survey and Interviews of Environmental Coordinators, Project Managers, and Planners

An email-based opinion survey collected data from TxDOT division and district environmental coordinators, planners, project managers, and specialists. The responses to these surveys and interviews were used to identify streamlining obstacles and potential strategies used to overcome them. Ninety-three surveys were distributed, and results were compiled from 46 respondents. The responses also included more than 200 written comments on the various streamlining issues and examples.

Researchers also conducted a limited opinion survey of TxDOT district transportation planning directors (TPDs) (13 of 25 districts responded). In-person and telephone interviews were conducted with the Houston, San Antonio, San Angelo, Pharr, and Tyler Districts. The results of the opinion surveys and interviews were compiled with comments and suggestions.

### Development of a Guidebook

Based on the review of streamlining efforts nationwide and the environmental clearance process within TxDOT, the research team developed a guidebook that highlights environmental streamlining issues and provides examples of streamlining practices.

## REPORT ORGANIZATION

This report presents the same breadth of information compiled in the environmental streamlining guidebook and contains the complete results from the streamlining surveys. The guidebook produced for this project (Report 4015-P1) was intended to summarize streamlining strategies and examples.

This research report is organized into the following chapters:

- Chapter 1–Introduction and Background,
- Chapter 2–State DOT Streamlining Summaries,
- Chapter 3–Surveys and Interviews,
- Chapter 4–Streamlining Issues and Strategies,
- Chapter 5–Recommendations, and
- The Appendices provide all of the responses and comments to surveys.

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# CHAPTER TWO – STATE DOT STREAMLINING SUMMARIES

## FHWA DEFINITION OF STREAMLINING

TEA-21 challenges the FHWA and the Federal Transit Administration (FTA) to implement "environmental streamlining." Environmental streamlining means different things to different people, but the term generally describes a new way of doing business that brings together the timely delivery of transportation projects with the protection and enhancement of the environment. FHWA describes environmental streamlining this way:

> *"In its simplest terms, environmental streamlining consists of cooperatively establishing realistic project development time frames among the transportation and environmental agencies, and then working together cooperatively to adhere to those time frames. Because major transportation projects are affected by dozens of Federal, State, and local environmental requirements administered by a multitude of agencies, improved interagency cooperation is critical to the success of environmental streamlining."*[1]

## FEDERAL STREAMLINING STRATEGIES

FHWA describes streamlining as: "… a more efficient and effective way to review and advance environmental clearance processes"[2].

Federal streamlining strategies include:

- program efficiency – timely reviews, early and continuous involvement;
- flexible mitigation – avoidance of impacts where possible, programmatic agreements;
- resource management – adequate staffing, agency agreements, interagency training;
- dispute resolution processes and conflict avoidance;

---

[1] Comment from FHWA Website http://www.fhwa.dot.gov/environment/strmlng/overview.htm.

[2] Comments are from 2001 TxDOT Environmental Streamlining Workshop, February 6-7, Austin, Texas. See the Workshop Summary of Proceedings available on the TxDOT Environmental Division website: http://www.dot.state.tx.us/insdtdot/orgchart/env/streamline/streamline.htm.

- measuring continuous improvement – measurement of progress through best practices, evaluation techniques, benchmarking, and performance standards;
- early involvement by agencies in the planning stage of development;
- more efficiency through programmatic agreements, watershed/system view;
- proactive agency participation and shared decision making; and
- continuous communication at all levels.

(A complete description of federal streamlining efforts is available on the FHWA website: www.fhwa.dot.gov/environmental/strmlng.htm).

Researchers conducted a review of environmental streamlining efforts at various state DOTs including Florida, New York, Oregon, Pennsylvania, North Carolina, and Washington. Federal agency websites were reviewed for reports on streamlining initiatives. The review was limited to information on websites and published transportation literature.

FHWA maintains a website for sharing DOT environmental streamlining best practices (http://www.fhwa.dot.gov/environment/strmlng/stateact.htm) and should be referenced for a more extensive listing of DOT streamlining activities. Additionally, an online center for the discussion of environmental issues called ***RE:NEPA*** provides a "community of practice" open to anyone at: http://nepa.fhwa.dot.gov/ReNepa/ReNepa.nsf/home. Provided below is a summary of selected DOT practices and links to their websites.

## CALIFORNIA

### Division of Environmental Analysis

The Division of Environmental Analysis (http://www.dot.ca.gov/hq/env/index.htm) acts as department compliance lead and assists districts and transportation partners. Publications, guidance, manuals, and forms can be found at http://www.dot.ca.gov/hq/env/resource/pubs/s.htm. They include works on air quality, biological resources issues, cultural resources, archeology, architectural history, community impact assessments, history, hazardous waste management, noise studies, and storm water production http://www.ecoiq.com/transportation/ (*1*).

### Environmental Handbook

The Environmental Handbook series (http://www.dot.ca.gov/hq/env/resource /pubs/handbook/handbook.htm) is written to ensure that state transportation projects are developed consistent with Caltrans' mandate to be a good steward of California's environmental resources. The handbook provides a compendium of the most vital laws, regulations, guidelines, practices, procedures, and processes that must be addressed, in concert with the requirements and needs of federal and local agency partners. Its focus is on achieving full compliance with National Environmental Protection Act (NEPA) and the California Environmental Quality Act (CEQA) (*2*).

The volumes of the handbook also provide guidance to local agency partners and to environmental and engineering consultants where interaction with Caltrans and the FHWA is necessary in developing transportation projects. The Environmental Handbook and related guidance documents are public domain and may be freely distributed. The Environmental Handbook has four volumes:

- Environmental Process, Procedures, and Documentation (http://www.dot.ca.gov/ hq/env/resource/pubs/handbook/vol1/EnvHandbookVol1.pdf),
- Cultural Resources (Archaeological and Historical),
- Biological Resources (http://www.dot.ca.gov/hq/env/resource/pubs/handbook/vol3/vol3.pdf), and
- Community Impact Assessment (http://www.dot.ca.gov/hq/env/resource/pubs/handbook/vol4/envhb4.pdf) (*2*).

## FLORIDA

### Environmental Management Office

Florida was selected as a pilot state for developing and implementing streamlining processes and to work with all agencies to develop a more efficient transportation decision-making process.

The Environmental Management Office of Florida (http://www.dot.state.fl.us/emo/ esp/esp.htm) is developing a transportation decision-making process and developing coordinated environmental review processes for transportation projects.

Included in the web resources of the Environmental Management Office is the meeting information for the "Developing Efficient Transportation Decision Making Processes" meetings (http://www.dot.state.fl.us/emo/esp/Meeting/meetings.htm), which covers the problems of creating an environmental streamlining process and possible ways to overcome those problems (*3*).

**Environmental Screening Analysis, Community Impacts, and Cultural Resources Criteria**

The Environmental Screening Analysis (http://www.dot.state.fl.us/emo/esp/library/envscran.pdf) is a list of questions related to the environmental screening criteria (*4*). Also included are questions on community impacts and cultural resources. Each question is followed with a brief explanation as to the intent of the question. They include:

- Does the corridor meet state and federal goals and plans for the study area?
- Does the proposed corridor cross or adjoin lands acquired or planned for acquisition as public conservation lands?
- Does the proposed corridor cross or adjoin lands identified as important to wildlife in the Florida Game and Fresh Water Fish Commission?
- Does the proposed corridor cross or adjoin federally defined critical habitat for a federally listed species?
- Does the proposed corridor cross or adjoin habitat other than critical habitat used by the state or federally listed, threatened, or endangered species?
- Does the proposed corridor cross or adjoin a 100-year floodplain of regional or state significance?
- Are proposed drainage alterations consistent with watershed management plans for the affected basins (e.g. SWIM plans, DWMPs)?
- Are the wetlands of state or regional significance in the corridor area?
- Does the proposed corridor cross or adjoin through Natural Resources of Regional Significance as identified by the Regional Planning Council for the area?
- Does the proposed corridor cross or adjoin a watershed that includes a special designation area?
- Does the corridor provide new access or increased capacity to a barrier island, or involve an area as a Coastal Barrier Resources Act Unit, or is located within the Coastal High Hazard Area?
- Does the proposed corridor provide new access or increased capacity to a non-urbanized area?

- Does the proposed corridor induce land uses that are not contemplated by the adopted comprehension plan?
- Does the corridor provide new or expanded access to environmentally sensitive areas?
- Will the proposed corridor support sound planned development (*4*)?

## MARYLAND

### Maryland's Streamlined Environmental and Regulatory Process

The Maryland State Highway Administration, Project Planning Division's *Best Practices Example: 'Maryland's Streamlined Environmental and Regulatory Process*,' is available at http://www.sha.state.md.us/. The streamlining process was evaluated with several performance measures, both by its agencies and by the Maryland State Highway Administration (SHA) (*5*).

The Streamlined Environmental and Regulatory Process consists of 18 steps:

- project planning initiation,
- interagency review meeting for purpose and need,
- concurrence on purpose and need,
- develop preliminary alternatives,
- alternates public meeting/workshop,
- identify alternatives for detailed study,
- interagency review meeting for alternatives retained for detailed study,
- concurrence on alternatives retained for detailed study,
- detailed alternatives analysis,
- prepare draft environmental document and hold public hearing,
- interagency review meeting for recommended alternative,
- SHA's selected alternative,
- interagency review meeting for SHA's selected alternative and conceptual mitigation,
- concurrence on SHA's selected alternative and conceptual mitigation,
- complete final environmental document,
- further environmental minimization and mitigation,
- receive necessary permits, and

- advertise for construction (*5*).

Also listed are steps to conflict resolution. Though statutes and regulations still hold precedence over the streamlining procedures whenever a conflict arises, participating agencies have agreed to commit their resources to the fullest practicable extent (*5*).

## MINNESOTA

### Minnesota Archaeological Predictive Model

The Minnesota DOT Archeological Predictive Model (http://carey078.itre.ncsu.edu/WLS/CLASSES/May11_2001/HTML/lect1/outfile.html) includes scoping, interpretation, design, and review followed by either survey design or concurrence (*6*). More efficient cultural resources showed that more projects were cleared with less mitigation and faster turnaround times (*6*).

## NEVADA

### Structured Decision Process: Nevada I-580 Preliminary Design

This project involved a highly visible/audible alignment through Pleasant Valley that included hydro thermally altered soils, difficult-to-regenerate terrain, two stands of pine forest, wetlands and springs, historical/cultural resources, and the longest, highest bridge in Nevada (http://carey078.itre.ncsu.edu/WLS/CLASSES/May11_2001/HTML/lect1/outfile.html) (*7*).

The project created an alternative selection process using a decision model. The model involved:

- define issues,
- identify evaluation criteria,
- prioritize/weight criteria,
- apply decision model,
- discuss/analyze results, and
- achieve consensus on preferred alternative (*7*).

The evaluation criteria are developed from key issues: wetlands impacts, tree impacts, water quality, negative vegetation impacts, incident access, off-site crossings, maintenance accommodations, ROW proximity, visual impacts, and construction costs (*7*).

## NEW MEXICO

### Environmental Stewardship and Community Impact Self Assessment

The New Mexico State Highway and Transportation Department (NMSHTD) and New Mexico Division Office of the FHWA performed an environmental performance assessment on NMSHTD, the Environmental Stewardship and Community Impact Self Assessment, which resulted in a strategic plan to improve performance in the future and created an environmental performance measure, the Environmental Responsibility Compass Measure (ERCM) (*8*).

The ERCM provides an evaluation of how well the department as a whole is performing as well as a snapshot in time so that projects can be periodically reevaluated to chronicle improvement or decline over time. The process includes public involvement and community impact, mitigation and enhancement, agency coordination, and the decision process (*8*).

## NEW YORK

### Environmental Handbook for Transportation Operations

New York State DOT (NYSDOT) developed an Environmental Handbook for Transportation Operations (http://www.dot.state.ny.us/eab/oprhbook.html) that provides general awareness and guidance of the primary environmental requirements that apply to the types of activities conducted by NYSDOT Operations. It is not intended to substitute for the actual regulations and interpretations by the environmental resource personnel, but rather to serve as a flag for certain issues that may require more assistance. The handbook is periodically updated to incorporate changes in regulations, activities, and policies. The current revision reflects changes through July 2001 (*9*).

**NYSDOT Environmental Initiative**

The New York State Department of Transportation Environmental Initiative (http://www.dot.state.ny.us/eab/epm.html) has as its purpose and goals to: advance state environmental policies and objectives, promote an environmental ethic throughout the department, and strengthen relationships with environmental agencies and groups (*10*).

NYSDOT uses its organizational strengths to make an affirmative contribution to the state's environment and to find more positive ways to work with the environmental community to everyone's benefit. They wanted a new paradigm and have changed the way they do business (*11*).

NYSDOT's Environmental Initiative is more than just an effort to incorporate environmental features into a project, streamline a regulatory process, or improve interagency communications. It is a public service ethic that provides a philosophical basis for accomplishing all these things and more. NYSDOT's framework can be adapted to any state and strengthens best practices from any source. While specific projects may bring incremental improvements, a progressive ethical framework can be the basis for continuing progress for all DOTs (*11*).

The purpose of the initiative is to make an affirmative contribution to the environment by using the strengths of the organization. This has resulted in improved relationships between NYSDOT and environmental agencies. The five major objectives of the initiative are as follows:

- Promote and strengthen an environmental ethic within the department.
- Advance State environmental policies and objectives with NYSDOT resources.
- Partner with others to construct environmental enhancements.
- Pilot new environmental protection and enhancement methods.
- Strengthen relationships with environmental agencies, organizations, and local municipalities (*10*).

NYSDOT has made Environmental Initiative Guidelines and Procedures available on its website: http://www.dot.state.ny.us/eab/eieab3.pdf. Environmental initiative examples can be found at http://www.dot.state.ny.us/eab/eiexampl.html.

## NORTH CAROLINA

### 4D Visualization: Transportation Applications

4D Visualization (fourDviz) (http://carey078.itre.ncsu.edu/WLS/CLASSES/May11_2001/HTML/lect1/outfile.html) is a temporal visualization database management system and a decision support and presentation tool. It provides real-time simulation with immediate feedback for visual analysis through interaction. The program allows for time control functionality, to select and view desired time dependent relationships (*12*).

FourDviz applications include: environmental impact visualization, noise impacts, land use planning, master planning, construction management, transportation planning, traffic analysis, and litigation and conflict resolution (*12*).

### Project Development & Environmental Analysis

The Project Development & Environmental Analysis (PDEA) (http://www.dot.state.nc.us/planning/pe/) is proactive and innovative in project development. They are investing in support for resource agencies, and the staff is dedicated to review of environmental projects (*13*).

## OHIO

### Ecological Guidelines

The Ecological Guidelines Manual (http://www.dot.state.oh.us/oes/manual01.pdf ) is intended to aid biologists and others working directly with the environmental assessment process in the preparation of an acceptable ecological survey report or a wetland delineation report for Ohio DOT projects. It also provides guidance and requirements for ecological literature and field surveys (*14*).

The manual is divided into three sections: Report Requirements, Survey Information, and Impact Analysis. The Report Requirements section provides a guide to the level or type of report and the format requirements necessary to generate an acceptable report. The Survey

Information section of the manual is divided into two parts: Literature Survey and Field Survey Methods. The Literature Survey section offers guidance on secondary source information that may be available for proposed projects. The Field Survey Methods section goes into detail on what, when, and how to collect data for Ohio DOT projects. The Impact Analysis section highlights questions that should be addressed in the Impacts Section of the document (*14*).

Ohio DOT's Environmental Services (http://www.dot.state.oh.us/oes/) works to provide environmental training, technical support, and policy development for the Ohio DOT. In addition to the Ecological Guidelines are the Archeological Report Guidelines (http://www.dot.state.oh.us/oes/report_guide.htm), and the Environmental Site Assessment Guidelines (http://www.dot.state.oh.us/oes/ECOESA/esagui~1.pdf) (*15*).

**Ohio DOT's Nine-Step Transportation Development Process**

The Ohio Department of Transportation Nine-Step Transportation Development Process (http://www.dot.state.oh.us/oes/pdp.htm) was established to accomplish the task of complying with the National Environmental Policy Act while developing a process that is interdisciplinary, systematic, and reproducible (*16*).

The process consists of a logical sequence of events:

- planning and programming,
- purpose and need,
- environmental scoping,
- selection of corridors,
- development of feasible alternatives,
- identification of the preferred alternative,
- approval of environmental document,
- issuance of Finding Of No Significant Impact (FONSI)/ Record Of Decision (ROD), and
- final design and construction (*16*).

This process encourages early integration of planning for environmental and engineering activities, on-going communication between agencies and the public, operational flexibility, ability to adapt, and continual integration of analytical data (*16*).

## OREGON

### Collaborative Environmental Agreement Process

The Collaborative Environmental Agreement Process (CEAP) (http://www.odot.state.or.us/eshtm/test2.htm) is a joint initiative to streamline the environmental process among 10 state and federal agencies. The goals of the project were to reduce redundancy and resource constraints and to focus less on process and more on environmental benefits. Documents were developed that clarified Oregon DOT's environmental stewardship responsibilities and provided guidance for decision makers (*17*).

### Environmental Guidance Group

Oregon DOT's environmental program, the Environmental Guidance Group (www.odot.state.or.us/eshtm/envguid.htm) Best Management Practices are prioritized with avoidance first, then minimization, and finally mitigation. Enhancement with respect to the environment is an opportunity to be considered, as opposed to a requirement. Enhancement includes activities that go beyond the agreed upon regulatory requirements, whether in planning, design, construction, maintenance, or operations (*18*).

### Geospacial Database: Oregon I-5 Condition Report

The Interstate 5 Transportation Condition Report (http://carey078.itre.ncsu.edu/WLS/CLASSES/May112001/HTML/lect1/outfile.html) is a comprehensive electronic tool for corridor planning (Oregon DOT, Geospacial, 18).

The environmental value of this report includes:

- resource mapping,
- data dictionary,
- red flag issue summary,
- access to associated data, and
- full set of air photos (*19*).

Developed in the report are three principal products of environmental information that describe specifically for the freeway including "Natural Resource Environmental Assessment for Highways I-5 and I-205" (*19*).

**Northwest Environmental and Transportation Streamlining Forum: Idaho, Montana, Oregon, and Washington**

The Northwest Environmental and Transportation Streamlining Forum: Idaho, Montana, Oregon, and Washington (http://www.odot.state.or.us/eshtm/streamline.htm) is a four state effort consisting of DOT's for Idaho, Montana, Oregon, and Washington together with their respective offices of US Fish and Wildlife, US Forest Service, and National Marine Fisheries Service (*20*).

The concept of the forum is that through partnering, transportation, and natural resource, agencies will better understand one another's constraints and capacity in providing services to the public (*20*).

**PENNSYLVANIA**

The Pennsylvania Department of Transportation created statewide environmental initiatives that encourage an environmental enhancement agenda, which includes performance goals that will reflect environmental accomplishments. They have also started cross training with the Environmental Protection Agency that has helped with the Mid-Atlantic Transportation and Environment Initiative (MATE).

**The Corridor O Project**

The "Corridor O" project (http://www.corridor-o.com/) is Pennsylvania's model for environmental streamlining. The four-stage project development process includes the visioning stage, development stage, refinement stage, and final comparison stage. The cornerstone of this process is early public and agency involvement. By involving all interested parties at the initial stages of the project, the project team will have a better understanding of the concerns and issues of the public and resource agencies, which will allow for better initial highway designs later on in the project (*21*).

### Maximum Information, Minimum Space

Pennsylvania has been looking for a better way to document environmental issues of proposed improvements along a stretch of highway in Indiana County. They came up with a companion CD ROM that condenses the information, making it more convenient. It offers clear, accessible information on alternatives related to farmlands, wetlands, and other environmentally sensitive areas (*22*). Maximum Information, Minimum Space is Pennsylvania's lean, new environmental impact statement. Identifying and minimizing the potential impacts include steps that:

- consolidate detailed field investigation results,
- define the projects scope and key environmental features,
- discuss the project's scope and key environmental features,
- discuss in the environmental consequences section only those resources identified in the study area or impacted by the alternatives,
- reference the methodologies used in the analysis,
- summarize detailed technical information in the environmental consequences section, and
- use clear and concise figures, graphs, charts, and photos to convey a maximum amount of information in a minimum amount of space (*22*).

## WASHINGTON

### Environmental Resources Utilization Analysis of TEA–21

The Washington State DOT (WSDOT) developed the Environmental Resources Utilization Analysis (http://www.wsdot.wa.gov/eesc/environmental/programs/regcomp/tea21/TEA_21.htm). The Environmental Affairs Office (EAO) of WSDOT and other WSDOT programs with environmental components, collectively known as Environmental Services, have done a good job of utilizing environmental resources contained in TEA-21. The agency obtained environmental funds through a variety of TEA-21 programs, including competitive federal discretionary programs, and facilitated the success of many Washington applicants. WSDOT also implemented several environmental provisions that, in conjunction with Environmental Services' efforts, are improving environmental stewardship throughout the agency and state (*23*).

Several key points of the analysis are:

- Environmental Services plays a variety of roles related to environmental funding and programs authorized by TEA-21. Important duties include representing WSDOT in national organizations such as the American Association of State Highway and Transportation Officials (AASHTO), assessing and facilitating NEPA compliance, streamlining the environmental permitting process, and serving as an applicant resource and project partner.
- Washington makes full use of funding provided through the Congestion Mitigation and Air Quality Improvement Program (CMAQ), the only program with money specifically dedicated to transportation projects designed to improve environmental quality.
- WSDOT is an active participant in a variety of TEA-21 research programs and has parlayed staff expertise and insight into many federal research efforts. For example, WSDOT staff members sit on several national research panels (including National Cooperative Highway Research Program [NCHRP] panels), have proposed many research projects and issue statements that have been awarded federal funding, and have explored opportunities to advance pilot projects and other programmatic innovations that fall outside of defined TEA-21 programs. WSDOT should continue to explore the opportunities available to engage in national research programs available through, and in conjunction with, TEA-21.
- TEA-21 programs that typically fund large, "traditional" transportation projects (such as the Surface Transportation Program, National Highway System Program, and Public Lands Highways Program) do not generally authorize funds for environmental activities beyond required mitigation.
- Environmental Services' work to streamline the environmental permitting process is the most widely supported use of additional office resources and will benefit all programs and projects receiving funding through TEA-21.
- Washington has successfully obtained funds through federal discretionary programs, but increasing Environmental Services' focus on winning grants through these programs may not be the most effective use of additional office resources.
- While WSDOT has funded environmental projects through sources such as the Transportation Enhancement set-aside, Environmental Services could more aggressively pursue environmental funding that is available for—but not dedicated to—eligible projects. The Transportation Enhancement and CMAQ programs were repeatedly mentioned as the avenues through which environmental funding for transportation projects is considered most easily accessible.
- WSDOT has yet to implement a few environmentally related, albeit minor, TEA-21 provisions. Environmental Services may wish to evaluate the benefits of implementing such provisions (*23*).

# CHAPTER THREE – SURVEYS AND INTERVIEWS

## ENVIRONMENTAL STREAMLINING SURVEYS

Researchers conducted an email-based opinion survey of TxDOT division and district environmental coordinators, planners, project managers, and specialists. The responses to the survey and interviews were used to identify streamlining obstacles and potential strategies used to overcome them. Ninety-three surveys were distributed, and results were compiled from 46 respondents. The responses from the environmental coordinators also included more than 200 written comments on the various streamlining issues; examples are contained in Appendix A.

Researchers also conducted a limited opinion survey of TxDOT district TPDs (13 of 25 districts responded). In-person and telephone interviews were conducted with the Houston, San Antonio, San Angelo, Pharr, and Tyler Districts. The results of the TPD opinion survey and interviews were compiled along with comments and suggestions and are included in Appendix B.

## SURVEY RESULTS

The complete survey and results are contained in the appendices. Appendix A contains the results and over 200 written comments from the survey of environmental coordinators, practitioners, and planners. Appendix B contains the complete results and comments from the survey of district transportation planning directors (or equivalent position). Provided below are selected questions, highlighting the opinion survey results and comments.

### Streamlining and Environmental Stewardship

What do environmental coordinators think about the big picture? The opinion survey confirms that environmental stewardship is important to nearly all of the practitioners surveyed, as shown in Figure 1. Environmental stewardship can be a combination of attitude, ethics, and behavior. Stewardship is defined as taking care of other people's possessions or interests.

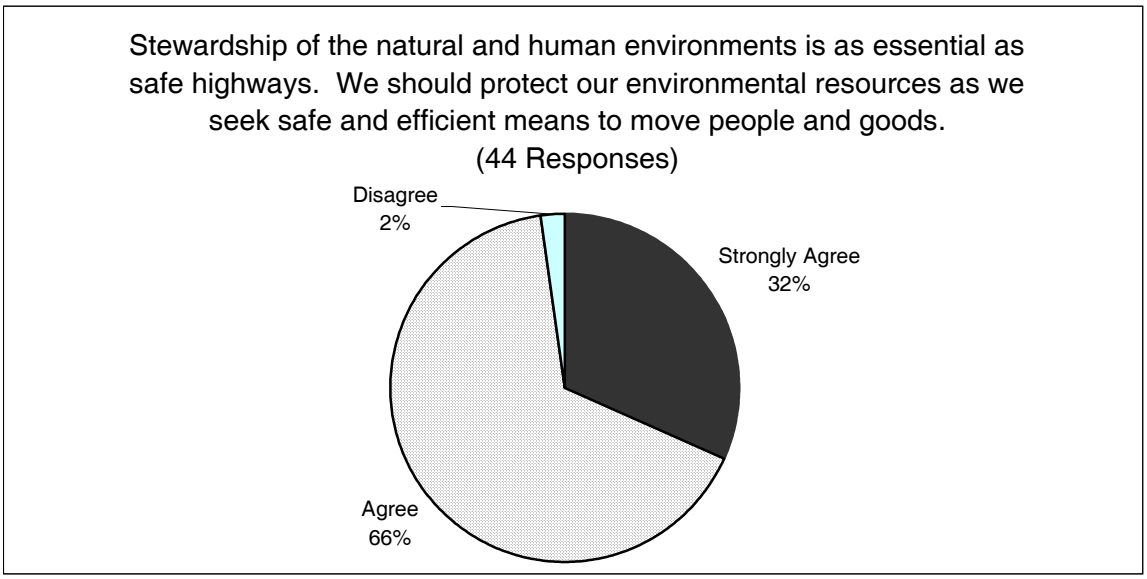


**Figure 1. Opinions on Environmental Stewardship.**

### TxDOT Environmental Coordinator Experience

Finding streamlining opportunities requires knowledge of the entire environmental clearance process. Practitioners who responded to environmental streamlining opinion surveys were generally very experienced. Table 1 shows that 69 percent of the respondents to the survey have more than nine years experience in transportation and/or environmental experience.

**Table 1. Survey Respondents Work Experience.**

| Years Transportation / Environmental Experience | Percent of Respondents |
|---|---|
| 0-3 years experience | 7.70% |
| 4-8 years experience | 23.10% |
| more than 9 years experience | 69.20% |

Assuming that most of the respondents to the survey are experienced and knowledgeable, what are the issues that hinder streamlining? In some cases, it is a matter of resources including information resources and staff resources. Figure 2 shows the results to the survey questioning how well practitioners believe they understand the environmental process.

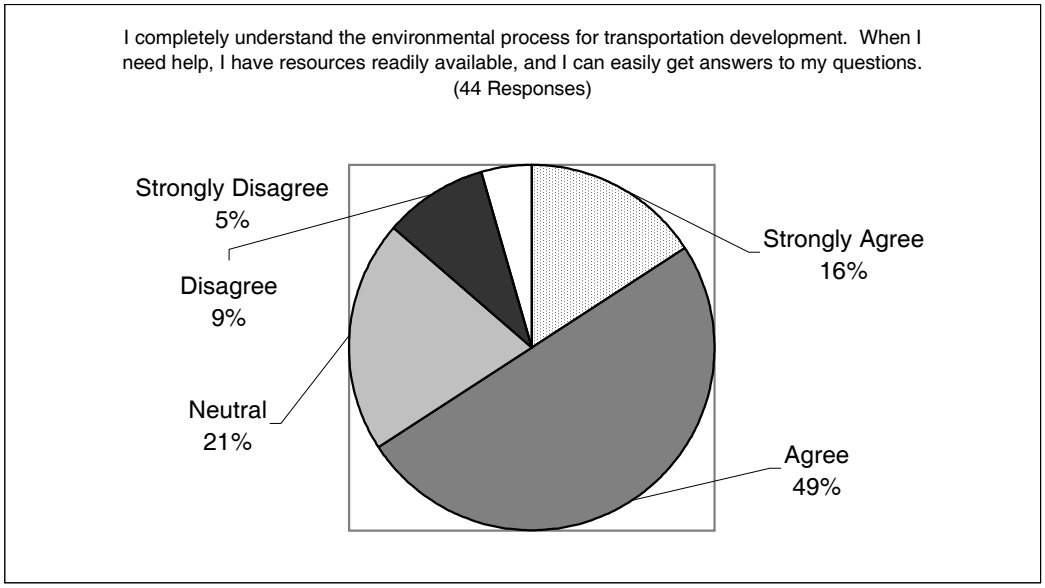


**Figure 2. Understanding of the Environmental Approval Process.**

### Environmental Categories Where Delays Occur

Delays in the environmental clearance process are typically associated with certain environmental assessment categories. Figure 3 shows that environmental coordinators believe the delays are most often associated with wetland issues, followed by Section 4(f) issues, and historic/archeological issues.

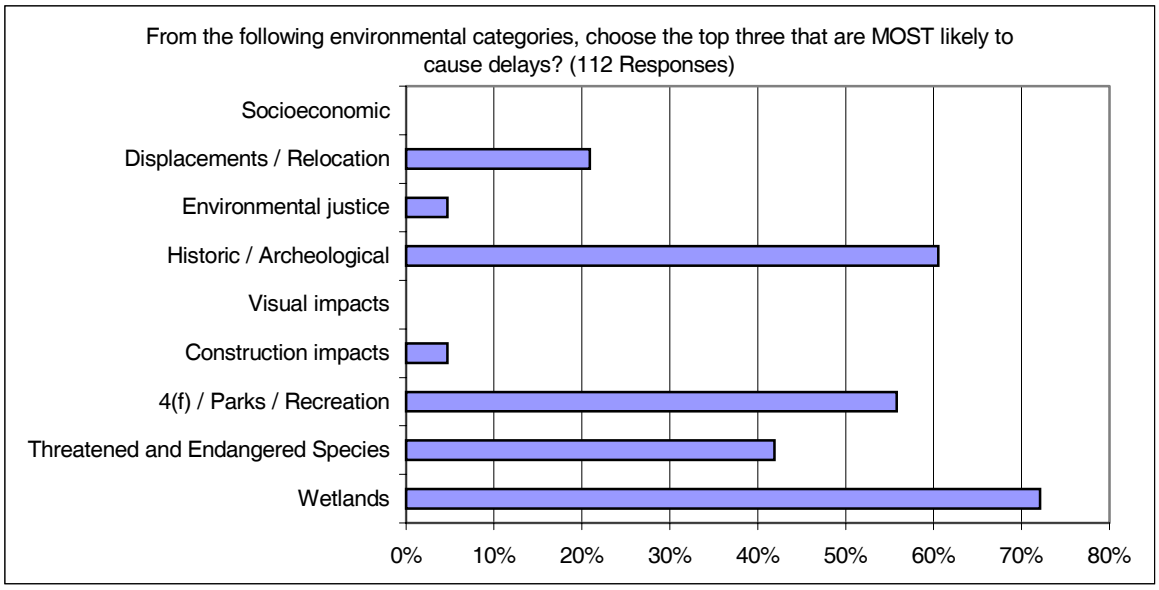


**Figure 3. Environmental Areas Causing Delays.**

## STRATEGIES FOR STREAMLINING

In the same opinion survey of TxDOT environmental and planning practitioners, a list of possible strategies to address streamlining obstacles was explored. The following streamlining strategies received the most favorable support.

### Environmental Cross Training

Environmental cross training involves an exchange of work experiences between the districts and the division. Project managers and environmental specialists from TxDOT's Environmental Affairs Division (ENV) reverse roles with district environmental coordinators. The exchange allows each practitioner to gain a better understanding of the other's unique job challenges as well as to build trust. See Figure 4.

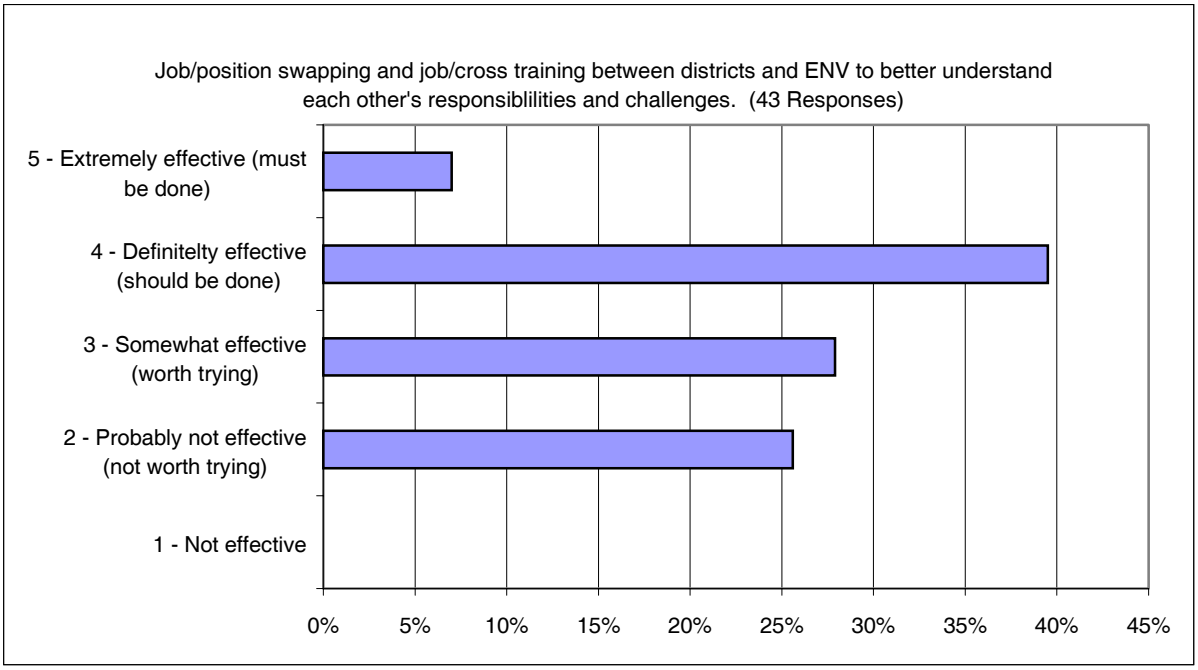


**Figure 4. Job/Cross-Training Strategy.**

### Attend Preliminary Design Conferences

Having district environmental coordinators attend preliminary design conferences is routine in many districts. Participation by environmental coordinators is critical to identifying environmental problems before they occur and pursuing avoidance instead of mitigation. See Figures 5 and 6.

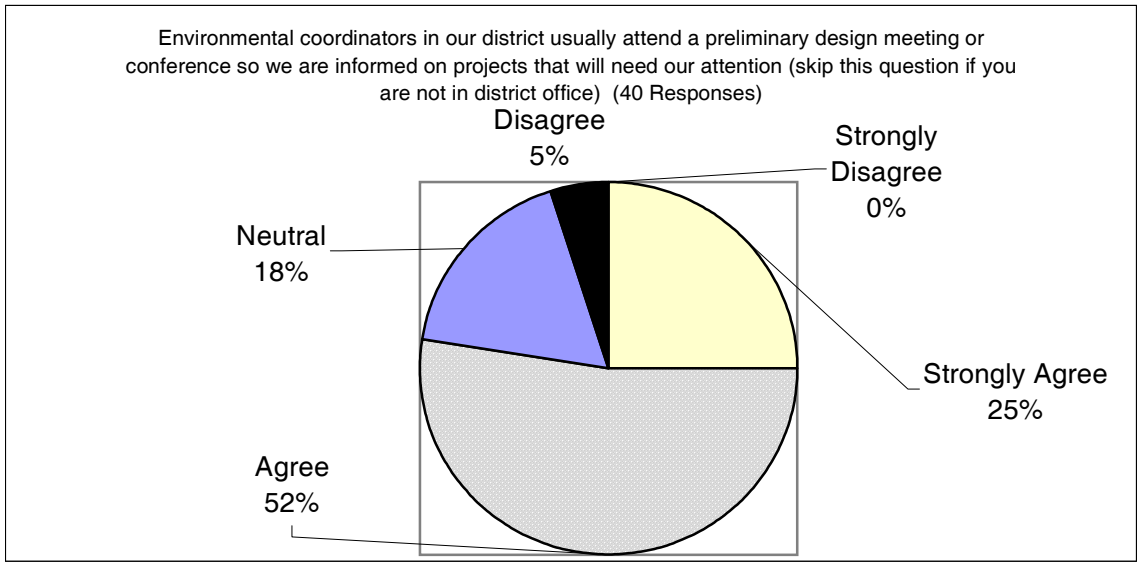


**Figure 5. Preliminary Design Conference Attendance.**

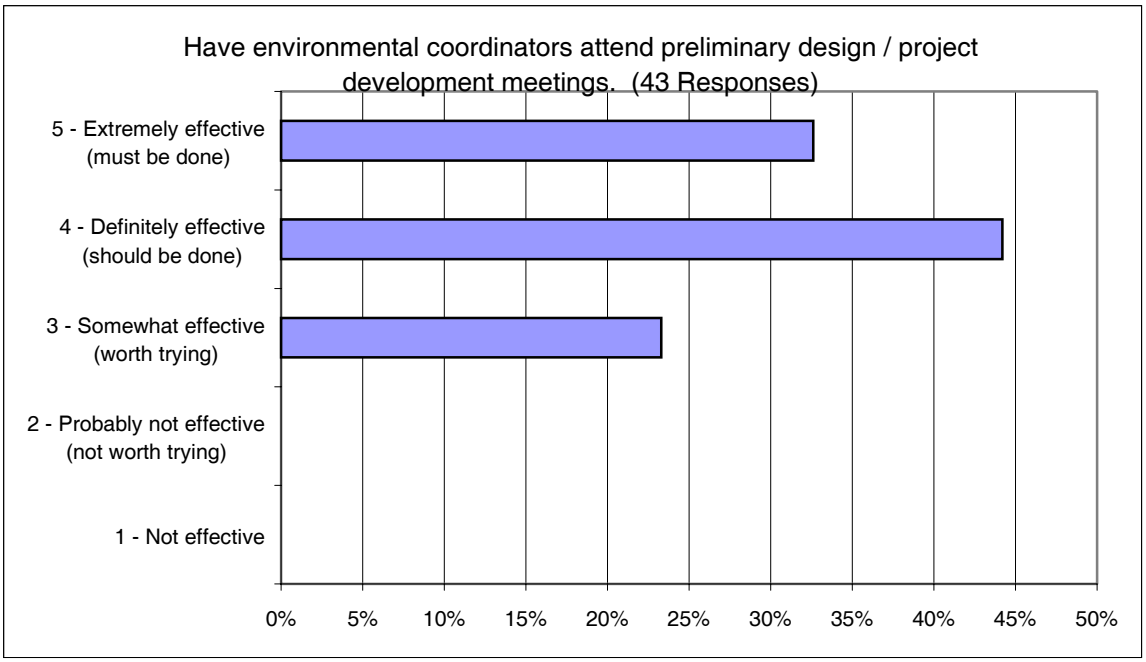


**Figure 6. Preliminary Design Conference Attendance Strategy.**

### Establishing Concurrence at Project Milestones

Establishing concurrence points at project milestones serves to address several aspects of streamlining. It can prevent repeatedly revisiting the same issue or establish consensus to eliminate issues from further analysis. Once a milestone is reached, consensus with resource agencies (formal or not) forms the basis for advancing the project. Using milestones can build consensus on identifying alternatives, and it demonstrates to the public how and why decisions are being made. See Figure 7 below.

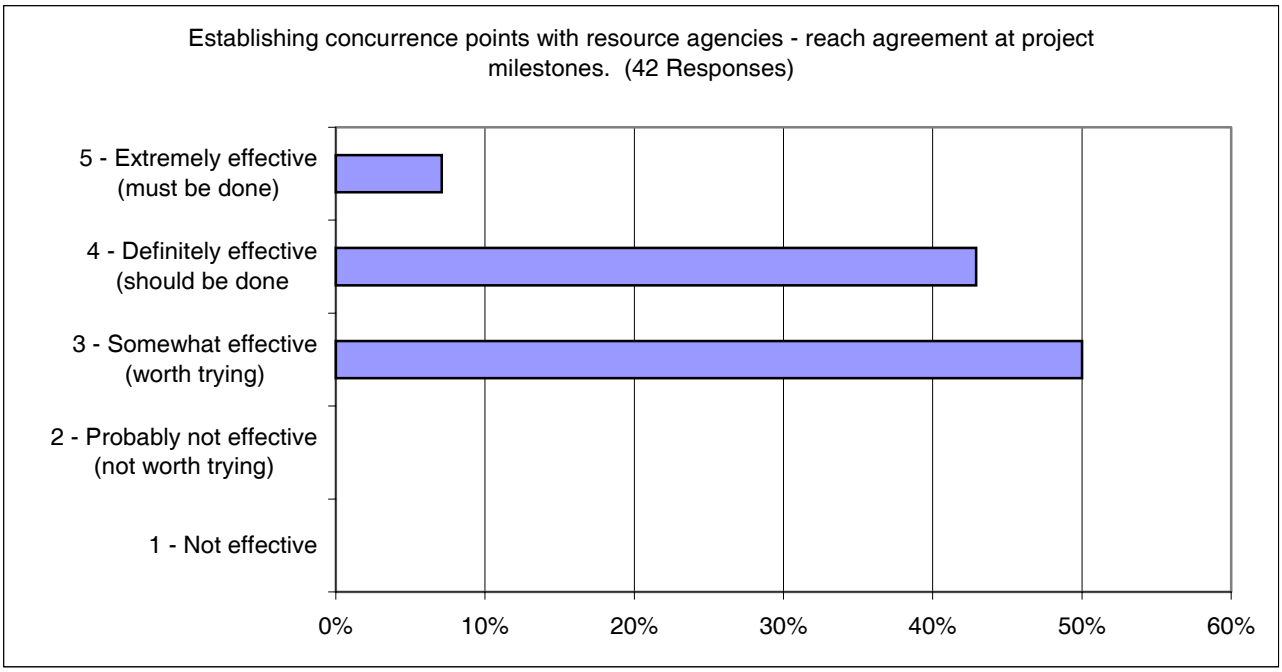


**Figure 7. Establishing Project Milestones Strategy.**

### Greater Access to the Internet and Agency Websites

Nearly all of the federal resource agencies, and most state resource agencies, provide guidance documents on their websites to aid in environmental assessment, permitting, and clearance processes. Additionally, many metropolitan planning organizations and resource agencies are repositories for environmental and demographic data that can be used in environmental analysis and screening. See Figure 8.

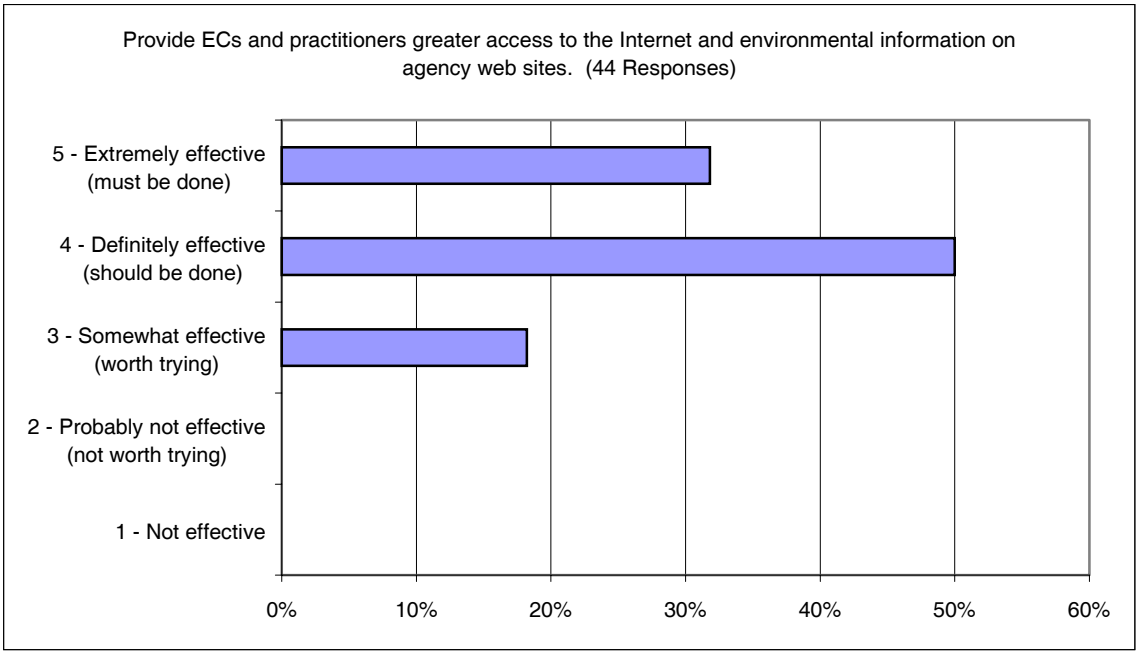


**Figure 8. Greater Internet Access Strategy.**

## Other Streamlining Strategies

The previous four streamlining strategies highlight the ones that received the most favorable rankings. Other streamlining strategies that received favorable rankings are listed below:

- funding more positions at TxDOT;
- establishing conflict resolution procedures with resource agencies;
- more programmatic agreements and programmatic permits;
- joint interagency staff training and workshops;
- environmental education for design staff and construction inspectors;
- joint environmental education and training with participation from design staff, construction inspectors, and environmental coordinators;
- earlier involvement of environmental coordinators on projects;
- earlier involvement of resource agencies on projects;

- continuous Environmental Coordinator (EC) involvement from planning through project development and construction;
- more interaction and cooperation between TxDOT and resource agency senior management;
- create project working groups that include planners, designers, environmental staff, and resources agencies;
- use more information technology and electronic networking resources such as project management software or virtual office to share documents and coordinate design and environmental activities; and
- more "on the ground" environmental monitoring/inspection at construction projects.

## INTERVIEWS WITH DISTRICT STAFF

Researchers conducted in-person and telephone interviews during and after the initial survey of environmental coordinators and TPDs. The interview questions were developed jointly with the project monitoring committee. Listed below are selected questions used in the interviews and a summary of the responses. The opinions expressed in the interviews generally support the opinions expressed in the survey.

### Interview Summaries

*What would you do within TxDOT to improve the environmental clearance process?*

The biggest challenges identified by the districts were with the environmental documentation process. Specifically, matching the scope of a project to the appropriate environmental document. The districts indicated that in many instances, the project scope and potential impacts do not justify extensive environmental documentation. For example, operational improvements to roadways with no new right-of-way and minimal impacts require an environmental assessment (EA). The districts encourage the use of use of more blanket categorical exclusions (CEs) and programmatic agreements.

Additionally, the mechanics of document preparation were mentioned as needing improvement. Districts suggested more uniformity and consistency for both the preparation guidance and review of environmental clearance documents.

Finally, districts expressed concern with the turnover in personnel in the division. Environmental reviews worked well where working relationships and trust have been established, but reviews lacked consistency when turnover occurred.

*What do you feel your role is in the environmental process?*

The primary goal expressed by the districts is to meet their letting schedule. The general belief is that meeting the environmental clearance requirements is one of the many parts of the project development process and meeting the schedule.

*When do the ECs get involved?*

Environmental coordinators usually get involved with development of the purpose and need statement and/or concurrent with the preliminary design conference.

*How realistic is the existing time frame for right-of-way (ROW) and clearance?*

The districts indicated that the existing time lines for ROW and environmental clearance is realistic with an occasional exception due to unforeseen environmental problems or other issues.

*How do you handle changes in design that affect environmental clearances already obtained? Or, changes in design or construction that are not compatible with agreements or permits?*

There are generally no set strategies or procedures for design changes that may have environmental effects. These situations are addressed on a case-by-case basis.

*Do construction engineers provide temporary impact information to ECs?*

In the districts interviewed, the environmental coordinators are in contact with construction engineers and managers so that they can alert each other to potential problems. Occasional oversights, or unforeseen problems, do occur. It is difficult for ECs to monitor all but the most critical projects. More often, they are alerted to environmental problems and then address the issue.

*How do you suggest we get consultants to provide more of the services you want, when you want? Is it a matter of communication, scope of services?*

The districts indicated that good working relationships and trust are the keys to getting the environmental documents they need in a timely fashion. Problems usually arise with new firms with much less TxDOT experience. Districts suggested more clearly defined scopes of work, as well as EC involvement in requests for proposals (RFPs) preparation and selection.

*When do you develop the Purpose and Need (P&N) Statement? Who develops the P&N?*

The purpose and need statement is either prepared by the environmental coordinator or prepared jointly with planning.

*Do you think Planning should develop the first P&N statement?*

Consensus from the districts was that development of the preliminary purpose and need should be prepared during planning and programming with EC involvement. Later refinements to the P&N statement should be expected and done formally for design concept conferences.

*How do you currently monitor or measure your environmental success?*

Districts do not as a matter of practice monitor or attempt to measure environmental success.

*Should TxDOT monitor construction for compliance to ensure implementation goals are met or mitigation is accomplished?*

Districts indicated that they do their best with the resources they have.

*Are there delays in approval with the division that could be avoided?*

Yes, particular concerns districts noted were environmental issues reviewed by the Cultural Resources and Natural Resources Sections. This perception is consistent with the environmental categories Historic/Archeological and Wetlands that were identified in the survey as most likely to cause delays (see Question #1, Appendix A). The delays identified included issues associated with both internal review and external resource agency concerns.

*Do you believe the customer relationship flipped? Do you believe the ENV serves the district, or do you serve ENV?*

Districts generally indicated that the division should support the districts efforts, but most view it as a cooperative effort with occasional exception.

*Do you use an Environmental Tracking System (ETS); would you use another system if it were available?*

Most of the districts in the primary interview group use ETS routinely. However, follow-up calls with other districts use ETS only occasionally or not at all. Two of the districts indicated they also participated in the paperless pilot project and see good potential for broader application. Most all of the district contacts use some type of additional tracking system to supplement the ETS.

**Common Streamlining Traits**

Although incorporating streamlining strategies into practice requires a department-wide effort, streamlining success stories usually begin with efforts by individual practitioners. Based on the interviews and surveys of environmental professionals at TxDOT, the following are common traits among project development participants who are streamlining. According to the people in the environmental clearance trenches, this is what it really takes to streamline:

- Improve project communication and information exchange. This includes maintaining an open dialogue with resource agencies, consulting partners, and contractors. Effective written communication in environmental scopes of work, plans sheets and general notes, and concise environmental documents are also important. Stay connected to the process, and keep information flowing.
- Build relationships and build trust with all of the stakeholders and participants in the project development and environmental clearance process.
- Use technology – it pays in the long run. The environmental tracking system, digital images for reports, using environmental databases from Internet resources, and visualization technology were all examples cited by practitioners.
- Be a project partner – everyone should be on the same team including environmental specialists, consultants, designers, and construction personnel.

# CHAPTER FOUR – STREAMLINING ISSUES AND STRATEGIES

## TXDOT ENVIRONMENTAL STREAMLINING WORKSHOP

On February 6 and 7, 2001, approximately 70 transportation professionals convened at the J. J. Pickle Research Center in Austin, Texas, to participate in the "Project Development Streamlining Workshop." TxDOT sponsored the workshop with cooperation and participation from FHWA. The participants in the workshop shared ideas on a broad range of environmental issues affecting the transportation project development process at TxDOT. As part of the workshop, TxDOT environmental coordinators and planners identified what they believed were obstacles to streamlining.

Listed below are early comments from the workshop participants on roadblocks to streamlining:

- lack of trust between agencies;
- resource agencies not having vested interest in project;
- lack of flexibility/rigid interpretation of laws;
- too much comfort in the "old ways";
- different agency agendas and goals;
- us vs. them (rather than "we") mentality;
- misunderstanding of agency roles and process;
- turnover/new staff in all agencies, lack of experience and knowledge;
- inconsistency – different districts, agency staff interpret rules differently, have different expectations (also affected by turnover), and changing priorities;
- lack of communication:
  - internally – on status of projects, on potential impacts;
  - externally – with other agencies;
  - lack of conflict resolution procedures;
  - lack of clearly defined environmental requirements;
- lack of empowerment of staff "at the table";
- lack of agency participation in TxDOT meetings:
  - don't respond to invitations;

    - don't participate early enough;
    - don't participate throughout the project;
- resource agencies want to know more detail before that information is available;
- lack of resources: too many projects and too few full-time employees on all agencies' parts; and
- revisiting work/decisions that have been made.

The entire proceedings from the workshop are available on the TxDOT website at http://www.dot.state.tx.us/insdtdot/orgchart/env/streamline/streamline.htm.

## ENVIRONMENTAL ISSUES AFFECTING PROJECT DEVELOPMENT AT TXDOT

The following sections are examples of issues raised in various meetings and discussions of the environmental issues and the project development process. In some instances, the example is a composite of several similar problems encountered by different districts. Some examples result from issues external to TxDOT. If you see this situation coming, start looking for solutions early.

### Environmental Information Continuity - Keep Environmental Information Moving

Planning level environmental information needs to continue into project level analysis. Whether it's background on the alternatives analyses or potential community concerns, avoid "pitching information over the fence" into the next phase of development. Greater continuity in the exchange of information from planning to design streamlines because:

- It reduces document preparation time, especially in development of the purpose and need statement and other assessments.
- It helps avoid duplicative efforts and starting over on analysis when the groundwork was already done.
- It calls attention to problems identified in planning, fatal flaws, or discovering new development obstacles that may need specific design accommodations.

**Changing Environmental Conditions**

Environmental factors not identified early become problematic later due to either unforeseen conditions or the changing nature of the site conditions and environmental priorities. In some instances, it may take so long for a project to reach development stages that conditions may have changed and require reexamination. One example cited was that of neighborhood issues and environmental justice that were not considered for a project planned five to seven years ago. Now, the project is in development but the environmental justice (EJ) issues are problematic because considerations were not made earlier to study the neighborhood impacts. Develop a matrix of environmental issues and alternatives to keep track of environmental issues that change.

**Keep Environment Commitments – Put Requirements in Plan Sheets and Notes**

A common issue that was identified was when contractors and equipment operators did not adhere to, or did not have, adequate direction regarding excavation/grading plans. As a result, environmental commitments were not met regarding saving a wetland or sensitive habitat (as an example). In general, the environmental permitting and documentation process is performed well, but implementation on the project at "ground level" falls short.

The suggested streamlining recommendations are:

- Place greater emphasis and detail on plan sheets to clearly show critical environmental information including:
  - avoidance areas for endangered species,
  - mitigation areas,
  - wetland boundaries,
  - avoidance areas for cultural resources,
  - temporary work areas, and
  - stockpiling locations for contaminated soils.
- Distinguish between areas "high probability" and "low probability".
- Include TxDOT Environmental Contacts and Resource Agency Contact information.
- Include documentation requirements in specifications as needed.

- Include contingency plans and schedules for unexpected environmental occurrences.
- Contract Management and Engineering Services.
- Communicate with the Area Offices.

One suggestion from a district environmental coordinator was to ask to be on the invitation list for all pre-construction meetings. Although it is not possible for environmental coordinators to attend all pre-construction meetings, being on the invitation list alerts the coordinator to sensitive or difficult projects where extra pre-construction environmental guidance would be helpful.

**Contract Management and Document Preparation**

Environmental coordinators may have limited quality control on outside work performed by consultants and their subcontractors, but they can certainly influence the outcome. Although many environmental consultants are available, finding those with environmental working experience on TxDOT projects is difficult. Respondents mentioned that placing more emphasis on consultant selection and managing consultants is an appropriate response. In particular, provide detail on environmental tasks in requests for proposals and in scopes of work. Work with the consultants as if they are development partners.

Environmental coordinators identified environmental documents prepared by consultants as a problem in the streamlining survey. It was noted that documents prepared by consultants cause greater delays than resource agency reviews. From the consultant's perspective, the environmental scope of work needs specificity to ensure expectations are met.

**Environmental Coordination with Transportation Partners**

When TxDOT performs cooperative projects with local governments, counties, or other entities, that entity may be given responsibility for the environmental documentation and clearance. Situations arise where environmental information and documents from the local entity are inadequate. TxDOT is then put in the awkward position of having responsibility for a project and little influence over meeting environmental requirements.

**Concise Environmental Documents**

A familiar complaint among district and division environmental professionals was that of voluminous assessments that, in some cases, are not necessary. The EA should be more concise and contain less extraneous material. Longer assessments take more time to review, make finding information tedious, are expensive to reproduce, and frustrate the public review. This is currently being addressed through training modules being developed and delivered by the environmental division, a new scope of work for environmental services, and environmental assessment format.

**Federal Emergency Management Act (FEMA) and Local Government Coordination**

A problem arises from FEMA requirements and local government coordination. In some instances, a local representative is non-existent to coordinate and address compliance with FEMA requirements. In other instances, local requirements exceed minimum FEMA requirements, yet TxDOT is obligated to design and construct to the minimum. Local governments expect TxDOT to absorb additional design and construction for anything over the minimum requirements they are requiring.

**Issues Considered but Eliminated from Further Analysis**

This problem is primarily associated with ensuring that environmental issues that are considered and found to have no or minimal effect, are eliminated from further analysis and properly documented. The problem arises when a particular issue is repeatedly raised and reexamined unnecessarily. Address this problem by building consensus during project development and setting project concurrence milestones.

**Thinking Beyond the Right-of-Way Lines**

This streamlining issue is more conceptual in nature. During project development, there is a tendency to only examine issues between the right-of-way lines. Expanding consideration of environmental impacts outside the right-of-way can prevent potential development obstacles in the future. This is particularly true of environmental justice and water resource considerations.

## DISTRICT AND DIVISION STREAMLINING

Presented below is a list of various streamlining efforts used by the districts and division.

### Preliminary Design and Concept Coordination Meetings

Districts are having preliminary design and concept conferences/meetings that are more inclusive and comprehensive in scope. The meeting helps facilitate the flow and transition of environmental information and requirements, document problematic issues, and document environmental issues that have been considered but eliminated from further analysis. Additionally, district ECs are included earlier in the process. Where metropolitan planning organizations (MPO) are involved, they help with the "environmental memory" and transition.

### Environmental Tracking System

ETS provides a tracking system for documents and milestones to aid in coordination. Expanding the use and access to ETS potentially increases communication and coordination.

### Improved Plan Sheets

Districts are including more plan sheets (where appropriate) with specific environmental information and clear instructions. In several instances, plan sheets were described as being very effective by using specific environmental plan sheets, or callouts, to notify contractors of areas to avoid. Another method used by some districts, when possible, is to have environmental coordinators attend pre-construction conferences to be sure the contractors know the environmental issues of concern. At a minimum, be sure to contact the area offices and construction managers to alert them of environmental issues that could slow the project.

**Revised Environmental Assessment Format**

The environmental assessment format has been revised to be more concise. The revised environmental assessment outline provides opportunity to streamline by including:

- "issues eliminated from detailed study" in Chapter 1,
- combining the affected environment and environmental consequences into the same chapter,
- narrowing the field to reasonable alternatives, and
- including matrices for comparison of alternatives and potential environmental effects.

**Improved Purpose and Need Statement Development**

The purpose and need statement in many respects guides the project through development. The statement briefly specifies the underlying purpose and need for which TxDOT is proposing alternatives to a proposed action. An increased effort to improve purpose and need development has been implemented by the division with a new guidance that improves the early environmental planning and conveying environmental information more effectively. Many districts prepare an informal purpose and need statement to help with early recognition of environmental problems.

**Use of Pre-Certification for Environmental Consultants**

TxDOT has a pre-certification process to improve the quality of environmental services provided by consultants. Expanded use of pre-certified consultants and verification may be needed to improve the effectiveness of the program, particularly the sharing of district experiences on various firms. Additionally, putting more specific environmental language and requirements in engineering RFPs may improve the quality of the engineering and environmental product.

**Scientific Services Contracts for Environmental Documentation**

Scientific services contracts allow TxDOT to award contracts for environmental, cultural, and historical studies. The contracts are awarded via sealed competitive proposals and consider price as well as qualifications. (This in contrast to professional services contracts for engineering services.) The benefits of using scientific services include:

- using more detailed scope of services for EAs and CEs;
- explicit performance specifications, reducing time-consuming re-writes;
- work can start ahead of design to integrate NEPA into early project development;
- avoid appearance of "design and defend";
- begin agency coordination before design;
- begin design with knowledge of constraints; and
- formalize existing process that is seldom documented.

**Use of Evergreen Contracts/Contractors**

TxDOT uses an "Evergreen Contract" to enable the use of services of pre-qualified environmental consultants familiar with TxDOT processes. The use of evergreen consultants has been effective in addressing environmental issues quickly.

**Hazardous Materials Management Section**

Reducing delays caused by the occurrence of contamination involves early identification and assessment of known and suspected contaminated areas. The earlier contamination is identified, the more time there is to consider options to resolve the problem. The Hazardous Materials Management Section streamlining strategy focuses on training, guidance, and contracting assistance. A two-day module focusing on conducting initial site assessments will be offered. Guidance documents are available on the TxDOT Intranet to aid in early identification and corrective action of contaminated media in TxDOT ROW. Also, contracting assistance in the form of "evergreen" contracts provides a statewide pool of environmental services providers.

Contact: David L. Boswell, P.E. Hazardous Materials Management Section. See Hazardous Materials in Project Development Draft Guidance on the Intranet (Crossroads) http://crossroads/org/env/env-hmm-hmpdgd.html.

**Division of Environmental Work between District and Division**

Depending on the resources and expertise in the districts and division, TxDOT works together to allocate the necessary resources to get the job done and coordinates environmental reviews.

**District Coordination with MPOs and Local Officials**

TxDOT districts routinely coordinate activities with MPOs and local officials early in the process to identify potential obstacles in the project development process.

**Environmental Training Courses**

ENV will be conducting a series of environmental training courses in the districts with participation of the district EC. This effort should go a long way to improving the effectiveness in which environmental issues are addressed in project development.

**Interagency Meetings**

Interagency meetings are being held to overcome major barriers to environmental streamlining. The meetings involve problem identification and strategy development among the Environmental Protection Agency - Region 6, FHWA, Southwestern Division of The US Army Corps of Engineers (COE), and TxDOT.

**Document Preparation and Paperless Pilot Project**

The Environmental Affairs Division managed a pilot project among several districts to go paperless for many aspects of the environmental documental process. Feedback from the participating districts was very positive. Incorporating the use of more ".pdf" documents into the

review process allows easier attachment to email and integration into the environmental tracking system. In addition, districts and division share document preparation tips.

**Compensatory Mitigation / In Lieu Fee Mitigation**

Subchapter H, Chapter 201, Transportation Code was amended during the 77th Texas Legislative 2001 session by adding Section 201.6061 as follows:

> *Sec. 201.6061. PAYMENT OF FEE TO PUBLIC AGENCY OR PRIVATE ENTITY IN CONNECTION WITH MITIGATION OF CERTAIN ADVERSE ENVIRONMENTAL IMPACTS. If authorized by the applicable regulatory authority, the department may pay a fee to an appropriate public agency or private entity in lieu of acquiring or agreeing to manage property for the mitigation of an adverse environmental impact that is a direct result of a state highway improvement project (*77th Legislative Session 2001).

The first fee in lieu of mitigation was used for an endangered plant species along State Highway 6 to mitigate loss of habitat for the Navasota ladies tresses.

**Environmental Planning and Comparison Matrix**

Matrices are used for alternatives comparison, decision support software, and other planning analyses. Typically, on the right side of the matrix, there are columns for the various alternatives, including the no-build alternative. The far left column usually contains the list of environmental and operational categories and considerations. Then, each category is either given a value or weight by some factor for each alternative. There are many variations of matrices with different levels of detail that can be used.

**Environmental Analysis Checklists and Process Flow Charts**

TxDOT districts use checklists to ensure requirements are met and to communicate environmental information quickly and efficiently. Checklists can also be counterproductive by being so prescriptive that they limit a truly objective analysis and consideration of environmental issues. The various checklists used in the districts are generally used as individual project management tools.

TxDOT has several process flow charts used by practitioners describing the project development process, environmental documentation, environment clearance processes, and transportation funding categories.

**Project Working Groups - Loop 12/IH-35E Streamlining Project**

The Loop 12/IH-35E project in Dallas, Texas, formed a Project Coordination Work Group (PCWG) including ENV, FHWA, and US Army COE to get early participation and involvement in the development of the schematic and environmental assessment. The Transportation Planning and Programming Division (TP&P) allowed TTI to perform the traffic design analysis. The Design Division initial review of the schematic design and resource agencies' early involvement in the coordination and review of the EA led to streamlining successes. It was one of the 10 nationwide selected by the American Association of State Highway and Transportation Officials.

**Project Websites**

Many districts and DOTs nationwide use websites to display project information and explain community and environmental impact information on a project website. The Kelly Parkway project in San Antonio is a good example. See http://kelly-parkway.com/English2/index_e.htm for more information.

Another example of a project website is the "Dallas High-Five" project in Dallas. See http://www.dallashighfive.org/.

**Memoranda of Understanding (MOU)**

TxDOT currently has MOUs with the Texas Parks and Wildlife Department, Texas Natural Resource Commission, and the Texas Historical Commission.

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# CHAPTER FIVE– RECOMMENDATIONS

## TXDOT IS STREAMLINING

The Environmental Affairs Division and many districts already have streamlining initiatives and practices in place. Many of the efforts go unrecognized or unpublicized as being streamlining. Through the daily execution of their duties, environmental coordinators use their skills to incorporate streamlining techniques into projects from their districts based on their knowledge of the regional environmental setting and relationships with resource agencies.

Examples of TxDOT streamlining efforts include:

- using fee in lieu of mitigation (newly amended Subchapter H, Chapter 201, Transportation Code);
- revised environmental assessment outline;
- increased emphasis on early planning and purpose and need development;
- revised scopes of work for environmental consulting services;
- availability of scientific services contracts for using environmental specialist;
- sharing document preparation tips, such as importing Microstation ".emf" files into Microsoft Word Documents;
- inclusion of environmental considerations in general notes and plan sheets;
- improved environmental tracking system and paperless pilot project; and
- using alternatives comparison matrix in environmental planning documents.

## STREAMLINING STRATEGIES

The survey of practitioners and TPDs provided an opportunity for insight into which strategies the respondents believe would be effective. Acceptance and confidence in the effectiveness of these strategies by those most directly involved in the process provide a basis for successful implementation. The "top eight" strategies ranked as being effective are listed below:

- greater (less restricted) access to the internet for coordinators and practitioners;
- joint environmental education and training with participation from design staff, construction inspectors, and environmental coordinators;
- early (and continuous) involvement of environmental coordinators on projects;

- have environmental coordinators attend preliminary design and project coordination meetings;
- environmental education for design and construction staff;
- more interaction and cooperation between TxDOT and resource agency senior management;
- more "on-the-ground" environmental monitoring/inspection at construction project; and
- more programmatic agreements and programmatic permits.

**GENERAL RECOMMENDATIONS**

- Continue to implement and monitor existing streamlining initiatives at both the division and district offices, with a focus on strategies showing support from practitioners and planners.
- Improve environmental information sharing early in the project development process, particularly in the development of purpose and need statements, and the transition from project planning to preliminary design.
- Increase education and outreach to TxDOT design consultants on the environmental clearance process, and clearly communicate project requirements in scopes of work.
- Increase education and outreach to TxDOT construction contractors on keeping environmental commitments, and provide critical environmental information on plan sheets and general notes.
- Publicize environmental successes in transportation development to the public and stakeholders to build trust.
- Embrace the use of information technology and document management software for communicating and exchanging project environmental information.
- Provide cross-training opportunities and professional development to environmental staff at the district and division to strengthen working partnerships and reduce turnover.

**DIVISION**

The following recommendations are directed toward the Environmental Affairs Division to build upon existing streamlining initiatives.

- Establish clear goals for cooperation and expectations between the district and division.

  - Districts perceived that Cultural Resources and Biological Resources created obstacles for streamlining in regard to reviews of proposed actions and/or the need for mitigation.

- Provide more opportunities for job cross training among project managers, and allow environmental specialists in the division to visit districts.
  - Turnover in division personnel was noted by districts as an obstacle to streamlining.
- Provide greater outreach and training in implementation of the environmental tracking system.
  - Approximately one-half of the survey respondents indicated either no opinion or unfamiliarity with the environmental tracking system.
- Encourage staff development and more staffing of environmental project management generalists to oversee and facilitate environmental clearance.
- Encourage increased travel of division environmental specialists to assist districts.
- Encourage and facilitate more paperless environmental document review and exchanges between the division and district. Provide for a file transfer protocol (FTP) site, which enable districts to send large document files easier and quicker.
  - District and division staff cited that large document files and electronic document transmission and management were slow and difficult with current networking and computer resources.
- Provide environmental assessment documents and other guides on the TxDOT intranet for district staff, and on the division website for consultants to access.
  - Consistency in document preparation and review comments was an often-cited area of concern and obstacle to streamlining.
  - Increase the posting of environmental guidance documents, document templates, matrices, and document tools on the TXDOT intranet.
- Continue and expand interagency coordination meetings and outreach to develop more MOUs and programmatic agreements.
- Publicize environmental successes and stewardship to resource agencies and the public.

**DISTRICT**

- Provide unrestricted Internet access to environmental coordinators.
- Include environmental coordinators in preliminary design conferences.
- Prepare a preliminary purpose and need statement with the involvement of planners and environmental coordinators.

- Provide opportunities for more environmental education and awareness of designers and construction managers.
- Include environmental coordinators on the invitation list for pre-construction meetings for sensitive projects.
- Form project working groups on larger or complicated projects that include environmental staff, resource agencies, and transportation project development partners.
- Offer to reimburse travel expenses for resource agency partners to encourage their attendance at project coordination meetings.
- Promote stronger cooperation and contract management of design consultants for environmental document preparation.
- Include environmental plan sheets and notes in the plans, specifications, and estimates for all projects.
- Encourage paperless technologies for environmental documents. Embrace and invest in document management technology, software, and hardware.
- Prepare and compile environmental information on primary corridors in more readily accessible formats including use of websites, project websites, and CDs for publication and distribution.
- Nurture and promote stronger relationships with resources agencies.

# REFERENCES


(*1*) California Department of Transportation. Division of Environmental Analysis. http://www.dot.ca.gov/hq/env/index.htm. October 23, 2001.

(*2*) California Department of Transportation. Environmental Handbook. http://www.dot.ca.gov/hq/env/resource/pubs/handbook/handbook.htm. June 1997.

(*3*) Florida Department of Transportation: Environmental Management Office. "Developing Efficient Transportation Decision Making Processes Meetings Information." http://www.dot.state.fl.us/emo/esp/Meeting/meetings.htm. October 8, 2001.

(*4*) Florida Department of Transportation: Environmental Management Office. "Environmental Screening Analysis, Community Impacts, and Cultural Resources Criteria." http://www.dot.state.fl.us/emo/esp/library/envscran.pdf. October 8, 2001.

(*5*) Maryland State Highway Administration: Project Planning Division. "Best Practices Example: 'Maryland's Streamlined Environmental and Regulatory Process.'" November 9, 2001.

(*6*) Minnesota Department of Transportation. "Geospacial Modeling: Minnesota Archeological Predictive Model," by Elizabeth Hobbs, GIS Technical Lead. Center for Transportation and the Environment, North Carolina State University and North Carolina Department of Transportation and Transportation Research Board. CTE National Teleconference Series: "Results of NCHRP Project 25-22: Technologies to Improve Consideration in Transportation Decisions. May 11, 2001. http://carey078.itre.ncsu.edu/WLS/CLASSES/May11_2001/HTML/lect1/outfile.html. May 18, 2001.

(*7*) Regional Transportation Commission of Washoe County (Reno, Nevada). "Structured Decision Process: Nevada I-580 Preliminary Design," by Howard Riedl, Senior Engineer. Center for Transportation and the Environment, North Carolina State University and North Carolina Department of Transportation and Transportation Research Board. CTE National Teleconference Series: "Results of NCHRP Project 25-22: Technologies to Improve Consideration in Transportation Decisions. May 11, 2001. http://carey078.itre.ncsu.edu/WLS/CLASSES/May11_2001/HTML/lect1/outfile.html. May 18, 2001.

(*8*) New Mexico State Highway and Transportation Department and Federal Highway Administration: New Mexico Division. "Environmental Stewardship and Community Impact Self Assessment." January 2000.

(*9*) New York State Department of Transportation. "Environmental Handbook for Transportation Operations." http://www.dot.state.ny.us/eab/oprhbook.html. July 2001.

(*10*) New York State Department of Transportation: Environmental Initiative. http://www.dot.state.ny.us/eab/envinit.html. October 8, 2001.

(*11*) McVoy, Gary. "The NYSDOT Environmental Initiative Guidelines and Procedures for a New Paradigm." New York State Department of Transportation Environmental Analysis Bureau. http://www.dot.state.ny.us/eab/eitrbdot.pdf. October 23, 2001.

(*12*) Balfour Technologies LLC. "4D Visualization: Transportation Applications," by Michelle Boullianne, Aviation and Transportation Consultant. Center for Transportation and the Environment, North Carolina State University and North Carolina Department of Transportation and Transportation Research Board. CTE National Teleconference Series: "Results of NCHRP Project 25-22: Technologies to Improve Consideration in Transportation Decisions. May 11, 2001. http://carey078.itre.ncsu.edu/WLS/CLASSES/May11_2001/HTML/lect1/outfile.html. May 18, 2001.

(*13*) North Carolina Department of Transportation: Project Development and Environmental Analysis. http://www.dot.state.nc.us/planning/pe/. October 5, 2001.

(*14*) Ohio Department of Transportation: Department of Environmental Services. "Environmental Guidelines Manual." http://www.dot.state.oh.us/oes/manual01.pdf. February 2001.

(*15*) Ohio Department of Transportation. Department of Environmental Services. http://www.dot.state.oh.us/oes/. October 23, 2001.

(*16*) Ohio Department of Transportation. "ODOT's Nine-Step Transportation Development Process." http://www.dot.state.oh.us/oes/pdp.htm. October 22, 2001.

(*17*) Oregon Department of Transportation: Environmental Services. "Environmental Streamlining: Collaborative Environmental Agreement Process Introduction." http://www.odot.state.or.us/eshtm/test2.htm. October 5, 2001.

(*18*) Oregon Department of Transportation. "Environmental Guidance." http://www.odot.state.or.us/eshtm/test2.htm. October 5, 2001.

(*19*) Oregon Department of Transportation. "Geospacial Database: Oregon I-5 Condition Report," by Terry Cole, Special Project Coordinator. Center for Transportation and the Environment, North Carolina State University and North Carolina Department of Transportation and Transportation Research Board. CTE National Teleconference Series: "Results of NCHRP Project 25-22: Technologies to Improve Consideration in Transportation Decisions. May 11, 2001. http://carey078.itre.ncsu.edu/WLS/CLASSES/May11_2001/HTML/lect1/outfile.html. May 18, 2001.

(*20*) Oregon Department of Transportation. "Northwest Environmental and Transportation Streamlining Forum." http://www.odot.state.or.us/eshtm/streamline.htm. October 18, 2001.

(*21*) Pennsylvania Department of Transportation: Corridor "O" Project. "Making Connections: The Corridor O Information Website." http://www.corridor-o.com/. October 5, 2001.

(*22*) Schilling, Ray. "Pennsylvania's Lean, New Environmental Impact Statement: Maximum Information, Maximum Space." American Association of State Highway and Transportation Officials Quarterly. Spring 1999.

(*23*) Washington State Department of Transportation: Environmental Affairs Office. "Transportation Equity Act for the 21st Century (TEA-21) Environmental Resources Utilization Analysis." http://www.wsdot.wa.gov/eesc/environmental/programs/regcomp/tea21/TEA_21.htm. October 8, 2001.

# APPENDIX A – ENVIRONMENTAL COORDINATORS SURVEY

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## SURVEY METHOD

Researchers developed survey questions from environmental streamlining obstacles and strategies to overcome them identified during the 2001 TxDOT Environmental Streamlining Workshop. The draft survey questions were distributed to the research monitoring committee for comments and revised based on those comments. The survey was automated using *Survey Solutions for the Web* software from Perseus Development Corporation (http://www.perseus.com/).

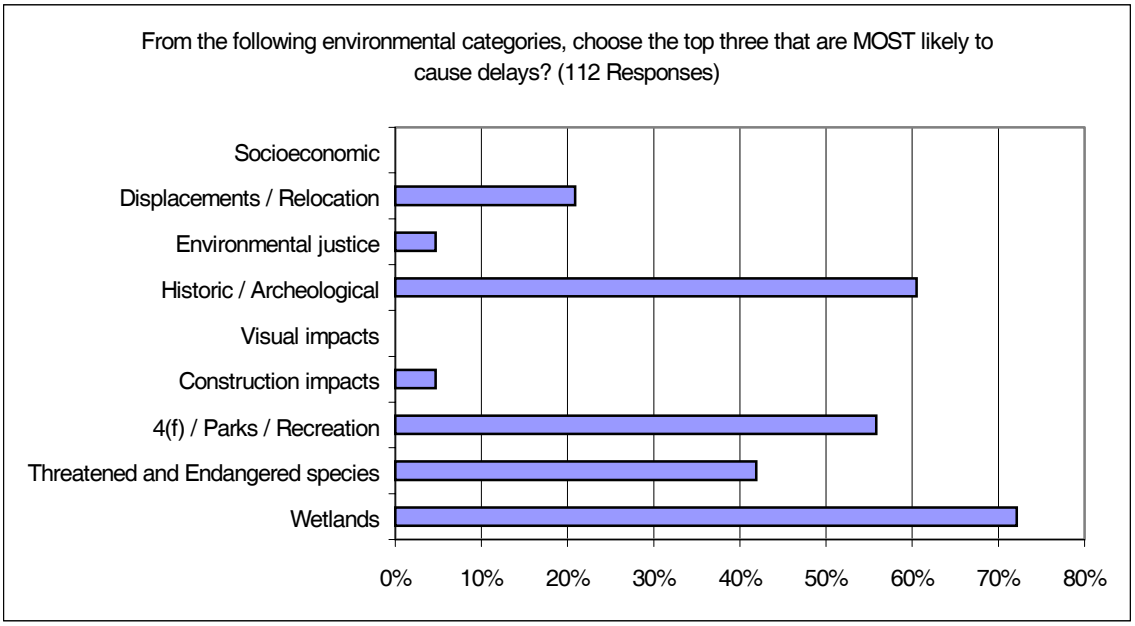
The survey instrument was distributed in two formats: an email-based text, and html-based Netscape file. TxDOT respondents with direct Internet access were able to open the Netscape file and submit responses directly. Those respondents without direct Internet access completed the survey in the email text and used reply to send the completed survey. A portion of the survey respondents printed the Netscape file and returned the survey via fax.

The opinion survey was sent to TxDOT division and district environmental coordinators, planners, project managers, and specialists. Ninety-three surveys were distributed, and results were compiled from 46 respondents. The responses also included more than 200 written comments on the various streamlining issues and examples.

Some survey questions allowed the respondent to choose more than one answer or response. Therefore, some of the questions have more than 46 responses. The written comments are taken directly from the respondents. Some of the written comments were edited to hide a respondent's name or identifying information.

Researchers assigned consecutive numbers to response comments for easy reference and to maintain anonymity.

## Question 1




**COMMENTS ON QUESTION 1**

1. Historical and archaeological coordination usually takes the longest and can sometimes kill projects.
2. Wetland permitting process is open-ended. The Corps can basically take as long as they want to in issuing a permit.
3. Okay, this is where I state some of my concerns about this streamlining initiative. You must know by now that there are many people who feel that this is a euphemism, a code, for efforts to gut, or at least weaken, NEPA as it applies to transportation issues, without ever touching NEPA. As a result, I am a little reluctant to single out aspects of the environmental process that cause delays, because with enough accumulated responses they could become the target of the gutting efforts, while in fact it may simply be that these are the most critical resources in an area. For example, if you work in an area with a long human history, there will be big historical and archeological issues, whereas if you work in an area with little human history but a rich biota, biological issues will dominate. It is that simple.
4. Another phenomenon needs addressing. There is a pattern of antagonism regarding natural resource issues that does not exist with most social or human resources. This antagonism causes a lack of cooperation with resource agencies, making it more likely that natural resource issues will cause delays.
5. A third issue concerning natural resources, especially endangered species, is the nature of the Endangered Species Act. It (correctly!) provides few choices to avoiding a species.

One of the main reasons any species is endangered is that we have not attempted to avoid it in the past. And we continue to begrudge avoidance today.

6. We try to avoid parks because it adds at least 1-2 years to the project. Also, if we have displacements and lack of public support, the project clearance takes a long time. Environmental justice and Section 8 Housing take a long time to process. Public support should be listed on the above list.

7. "Other" our biggest delay for construction projects involves mitigation/compensation issues with TPWD & USFWS.

8. I checked historical/archaeological because lately it seems that THC is asking for more mitigation of historical culverts in our District and their requests seem unreasonable (even applied to a "historic" roadway). We seem to be getting a lot of internal comments on documents for water quality, significantly more than we've ever received before. A lot of the questions we're being asked to address are not yet at the point in design that we can provide an estimate of how much disturbance. We are being asked to get the documents in earlier for coordination, but getting them in earlier means we often won't have all of the information we need to satisfy questions.

9. Other (projects that are on GLO lands) Coordination with GLO on projects such as bridge replacements where GLO lands may be involved. In addition to requiring coordination, LSLS surveys, easement applications, etc., there is substantial cost and delay in determining if an easement is necessary

10. I did not check any of these because none of these topics are especially likely to cause delays. Delays, when they occur, are project specific and not related to a specific environmental project.

11. In particular, the issue of mitigation related to wetland and habitat impacts.

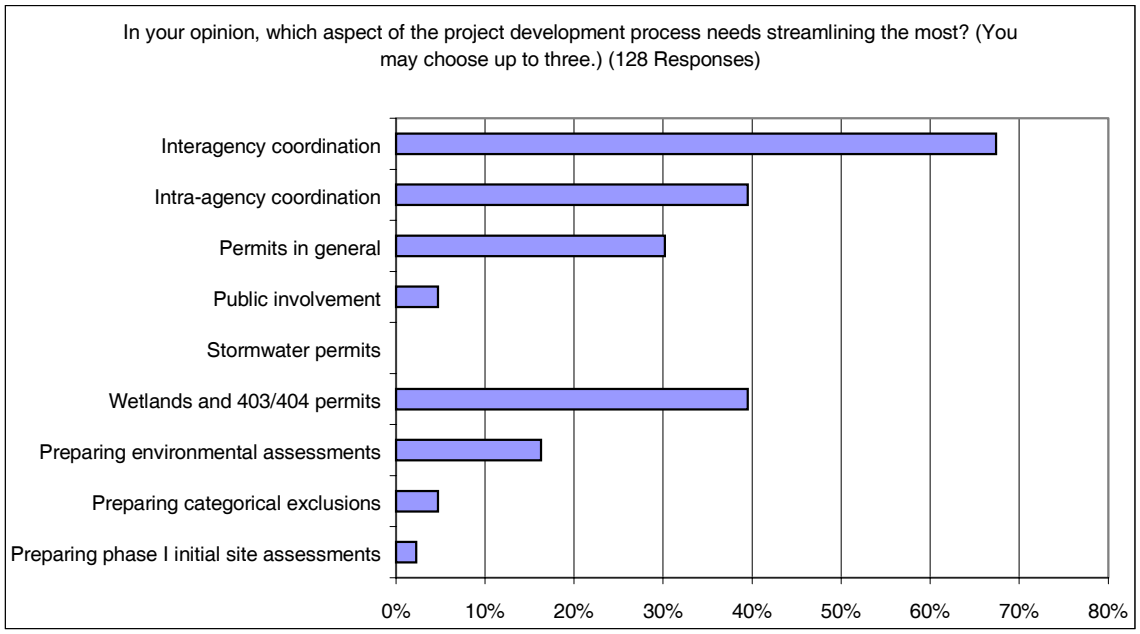
12. There is too much formal correspondence and not enough one on one problem solving with more utilization of email. When an agreed upon and desired course of action is determined, final agreements/permits can then be handled on a more formal basis and at this time and a complete paper trail will be in tact. TNM should not have been released until it was ready for use on a graphics machine. As is, TNM is entirely too time consuming. Coast Guard permits need to be partnered so it does not take so long to get the necessary design information to the Coast Guard and TNRCC.

13. I chose these categories because of the timeline involved in processing permits and Section 4(f). HazMat can take time to get through the rules and regulations.

14. #4 would probably be HazMat and #5 would be EJ

15. The delays will depend on the project. Not all projects will have historic issues or displacements.

## Question 2




### Comments on Question 2

16. Resource agencies will often have more than one time to comment on a project. For instance, if a project requires coordination with TPWD or USFWS, ENV will coordinate with the resource agencies when the document is sent from the district to ENV. If the project requires a USACE IP or NW# 23, then the resource agencies will have another opportunity to comment.

17. The USACE is not very responsive to project requests. Sometimes, you might call with a question, and no one, not even the secretary will pick up. Very seldom will they provide any formal documentation of their requests; it is almost always done over the phone. There is a lot of variation in the interpretation of the regulations from different USACE project managers.

18. 1st – Wetland, 2nd - 4f., 3rd - Historic/Archeological

19. It is difficult to select any of these that can be reasonably and truly streamlined. However, all of them are made easier by two means. One is when we become involved in the process as early as possible. By this I don't mean when the engineers want us to be, but when we can make a difference in avoiding some of the conflicts within TxDOT, between agencies, and with the public. The other is when we have a good trusting relationship with the resource agencies. This has in the past been an adversarial relationship, in which everything is subject to negotiation. This needs to change, and will itself 'streamline' the process at no cost to anyone.

20. Permitting overlap and redundancy of similar environmental requirements are the greatest impediment to "streamlining". Seeking approvals from these varied agency/authorities for their "version" of compliance is the primary cause of delays.

21. It takes too long for the agencies to review and approve projects and to resolve major issues. We all need to do what's best for the traveling public and not be concerned with our (agency) agenda or territories. All agencies must work for a win-win situation.

22. TxDOT is its own worst enemy. We have a ridiculous MOU with TPWD that gives them way longer (45 days) than any other agency.

23. Your survey comes at a really interesting time for us. We have submitted several documents lately where we have received four iterations of revisions. We have received comments from ENV that our documents are among the best in the state and yet we are revising them anywhere from one to four times. I don't know if it is inexperience from ENV reviewers, lack of guidance from supervisors to the reviewers about what comments are appropriate to make, our need to get documents cleared for letting or districts not preparing good documents. But it is aggravating to include corrections from one document in the next document and then have different comments yet again come from ENV.

24. I do not have a problem with Environmental Affairs Division, FHWA, or resource agency reviews. They are doing their jobs, and, if I do mine, delays are minimal. I do not have a problem with the review process.

25. Communicating and providing the information necessary to obtain permits seems to take longer than necessary. Preparing a 12 page Categorical Exclusion for addition of a paved shoulder or other very minor projects seems to be environmental overkill.

26. I believe that the designers are working on projects too late in the environmental process to be able to obtain the necessary permits in time for letting. Resource agency review time should also be reduced.

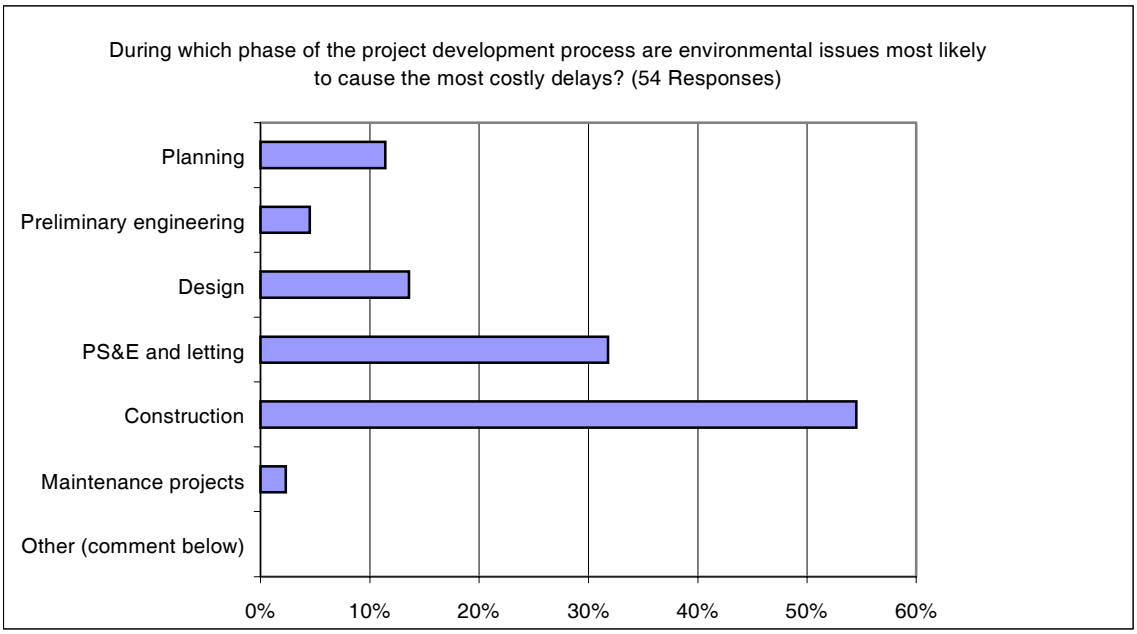
27. With a universal commitment to coordinating both (inter- and intra-), everything else would fall into place ... data collection requirements would be consistent and document review and permitting would become perfunctory.

28. NEPA requires the scope to determine the issues, which in turn are the subjects discussed in the document. TxDOT wants too many subjects covered that are not issues. To maximize streamlining, TxDOT needs to separate out coordination with resource agencies from the NEPA document.

29. Section 404 permits are by far #1.

30. Preparing environmental assessments is needed most.

## Question 3




### Comments on Question 3

31. More often than it should occur, changes in design pop up, well after the environmental document has been prepared or even approved. Sometimes the changes are passed on to the environmental section, other times not. The basic problem I see happen too often is that decisions are changed in mid-stream. If the schematic was approved and okay 2 years ago, why come back and make additional changes simply because that was not the way you (the particular manager) would have done it. This also causes problems with ROW. Once a project is approved, unless absolutely necessary, don't alter the design such that changes in ROW occur.

32. Lost time, billed changes for environmental reasons.

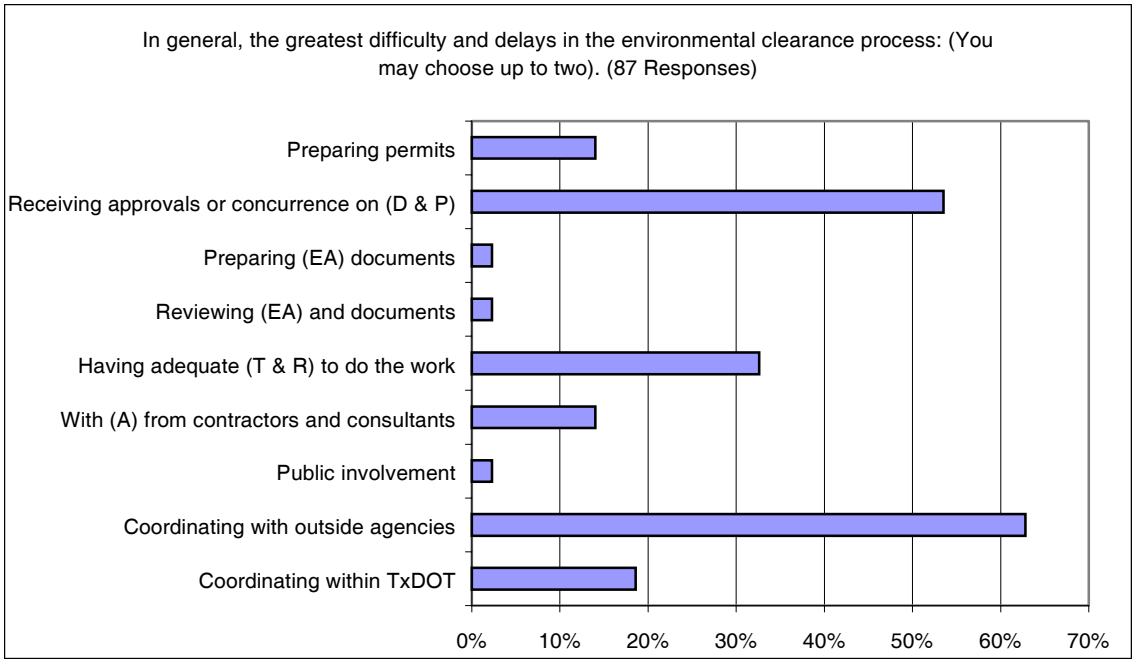
33. The greatest most visible cost related to a delay is when you have a project under construction, with traffic congestion, dust, idle construction equipment, and a contractor talking about 'claims.' This is when we discover someone has not done (or been prevented from doing) his or her job.

34. The contractor would be held up until the environmental issues are resolved and the costs associated with the delay would be extremely high and that's why the issues should be addressed at an early stage.

35. I think we do a pretty good job identifying environmental issues during the planning process, which in my mind includes preparation of the environmental document. We are also fortunate that our district does not have some of the environmental issues that plague other districts.

36. Two examples come to mind. US 77 in Refugio (CSJ 371-3-97) when an old mission cemetery was uncovered during construction and Spur 3 in Corpus Christi (CSJ 3596-1-2), which has had several things come up (i.e., COE permit issues, GLO easement issues, planned archeological monitoring, etc.) that have caused costly delays.
37. These type delays are most commonly the result of hazardous materials and petroleum products being discovered in the project right-of-way and can be very costly.
38. Often if found during construction, they are unanticipated and can be very costly to deal with on an emergency basis.
39. Environmental issues should be visited before any detailed design work has begun.
40. If all of the information is not made available early, then the letting could be delayed.
41. This is when the most resources have been invested
42. Delays because of environmental issues during construction are more costly due to stoppage of work, time loss, etc. Costs are high when the contractor is there just waiting.

## Question 4




### Comments on Question 4

43. COE is doing a great job but due to their work overload and understaffing, projects take longer than 45 days. We all should work on better communication with the coordinating agencies.

44. Our district does suffer from some of the same inexperience problems that other districts and divisions experience. Right now, our office has three people with two years or less experience preparing documents--on a part time basis along with their other duties. We have no environmental employees on a full time basis. In the past, the volume of work didn't demand any full time people, but in the last few years, it has become more obvious that a full time person is needed. I spend perhaps 80% of my time now supervising environmental document preparation and preparing documents.

45. Consultant documents are very difficult. You can give them specific samples to follow and some of them still don't get it right. And yet there are others who do quality work. Probably the hardest thing to do is to convey to them the latest changes/revisions/comments that we've gotten from ENV to include in their documents for us--because we don't get consistent information from ENV and it seems like it is never in writing.

46. This is a difficult one. Our experience with public involvement has been mixed. It has helped provide a better overall project in some cases but has caused extreme difficulty and delays in others especially when you can't always give the public what they want. In addition, coordinating with outside agencies causes us some delays since we are working on their timelines and priorities. Further delays occur when we have to get coordination and buy-in from within TxDOT prior to and subsequent to coordinating with the

agencies. Frequently, decision-makers want to avoid making the kinds of commitments that the outside agencies want.

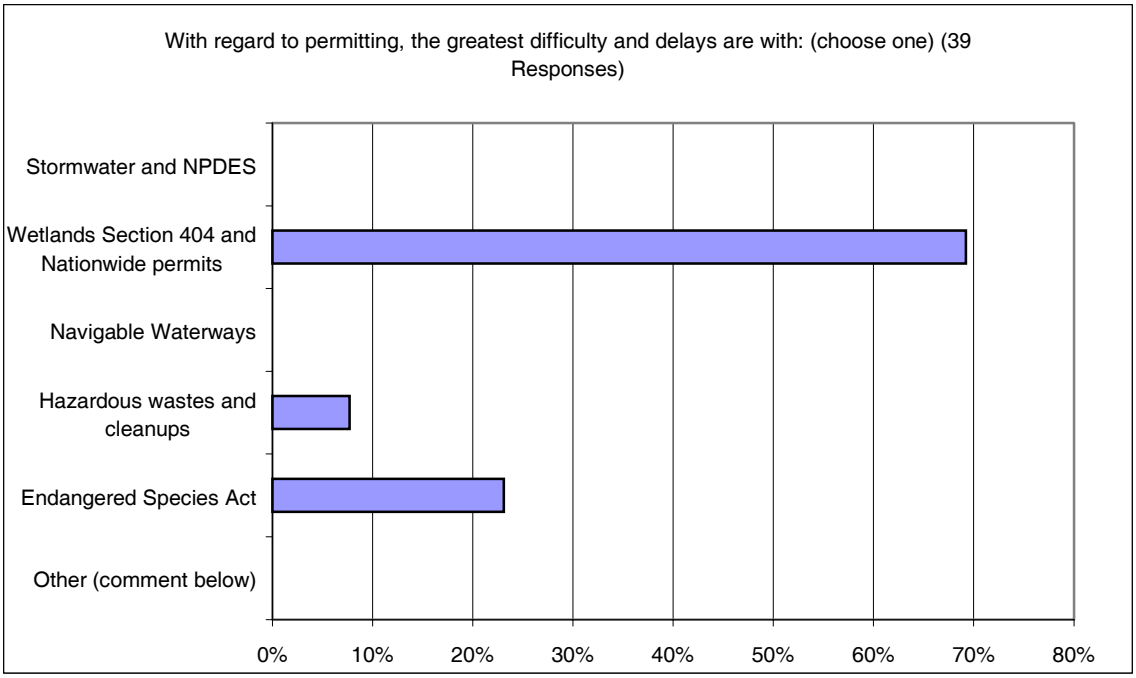
47. I am going to refer back to mitigation. For instance, a Section 404 permit cannot be completed without a mitigation plan. To find appropriate mitigation that all parties can agree upon is very time consuming.

48. It seems that let dates are constantly changing, which make it impossible to set a realistic schedule on how to approach our workload. ECs are not advised of projects being fast-tracked until immediate completion of the project is critical just to make let date.

49. Generally, receiving approvals are more time consuming. I think it could be because the division/FHWA work on projects statewide and do not concentrate on our projects to keep the process going. Maybe more FTEs to manage projects may work.

50. It is rare for the outside agencies to participate in coordination activities. If we could overcome this challenge, it is reasonable to believe that the clearance process would drastically improve.

## Question 5.




### Comments on Question 5

51. Problems with the Corps timeline.
52. This response again reflects the conditions that led to the ESA and State law, and the fact that species and habitats are endangered due to our lack of vigilance in the past.
53. TxDOT definitely needs to pay for a full time COE staff person so that person can work only on TxDOT projects because TxDOT is only about 15-20% of the Corps projects.
54. Luckily, we have not had any delays or difficulties in obtaining any of our needed permits.
55. In our experience, this has posed the greatest difficulty and delay especially when the permit requires compensatory mitigation. Getting agreement between TxDOT and the resource agencies over appropriate mitigation takes a lot of time and effort. Example is a site suitable to the resource agencies costs too much per acre as far as TxDOT is concerned.
56. I am fortunate to have XXXXX as my HazMat contact at Environmental Affairs Division. XXXX has been invaluable and has helped keep our clean-up costs focused and at a minimum.

57. I have had no experiences with Navigable Waterways, Endangered Species or Hazardous Wastes and Cleanups.

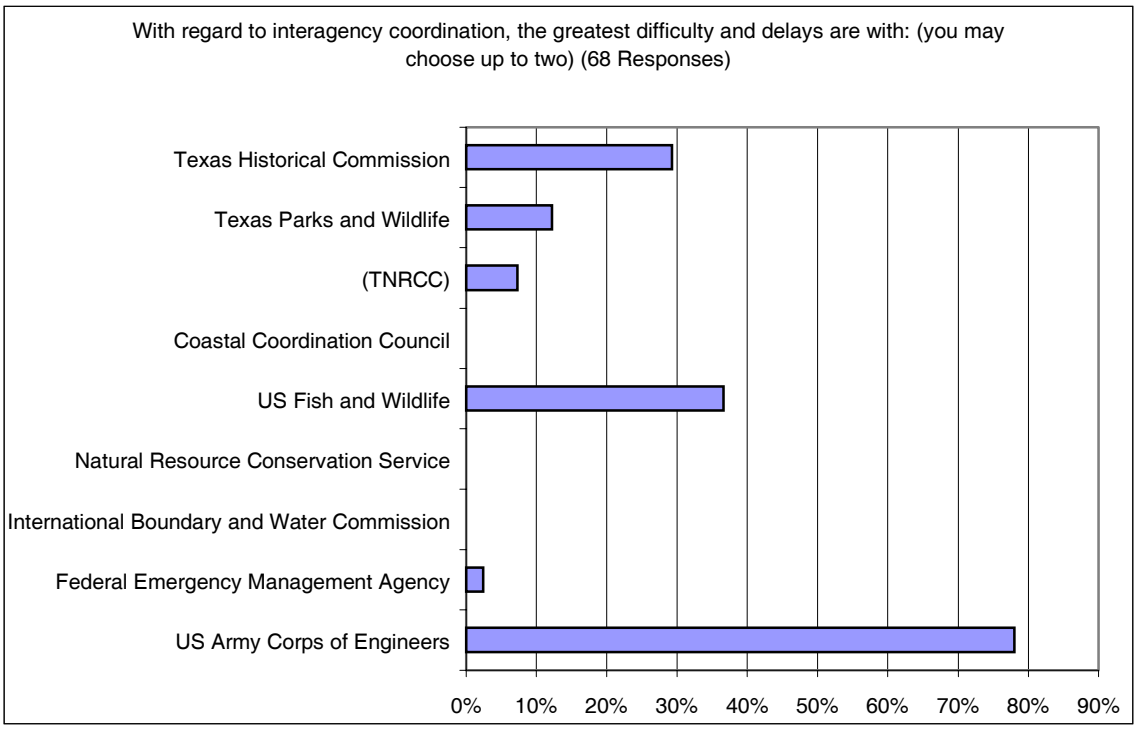
58. There is too much formal correspondence between agencies where an email will provide a more than adequate paper trail.

59. The NWPs is taking about 60 days instead of the 45 required. Although I have only experienced it once, HazMat issues can cause delays.

60. USFW is no cakewalk either!

61. There is no schedule applied to informal consultation. Formal consultation lends to intervention by advocate groups. When that happens, it is the court's schedule.

## Question 6.




### Comments on Question 6

62. You may have inadvertently revealed an example of the antagonism we exhibit. The only two entities named above that are incomplete are U.S. Fish and Wildlife Service, and Texas Parks and Wildlife Department. These are the two, which deal primarily with biological resources.

63. Sometimes there is a conflict in trying to preserve a historic bridge when that bridge needs to be replaced due to capacity, safety, low sufficiency rating, etc. Protecting the public should be a higher priority than protecting the bridge. The issue becomes dealing with subjective vs. objective socio-economic and environmental effects.

64. Example: Corinth Street Bridge: CSJ: 0048-01-035; Dallas County.

65. We've never experienced undue delays with interagency coordination.

66. I would like to tell you that our experience with the U.S. Army Corps of Engineers has been wonderful. Our person, XXXXXXX, ought to be nominated for sainthood. He has been cooperative, willing to visit project sites, provide training to maintenance employees, answer our questions on the phone or email, willing to help us complete the forms for an individual permit—can't say enough good things about him.

67. Coordination with the Texas General Land Office may become more difficult in the future.

68. The other is Texas General Land Office and the difficulty and delay associated with use of public school lands.

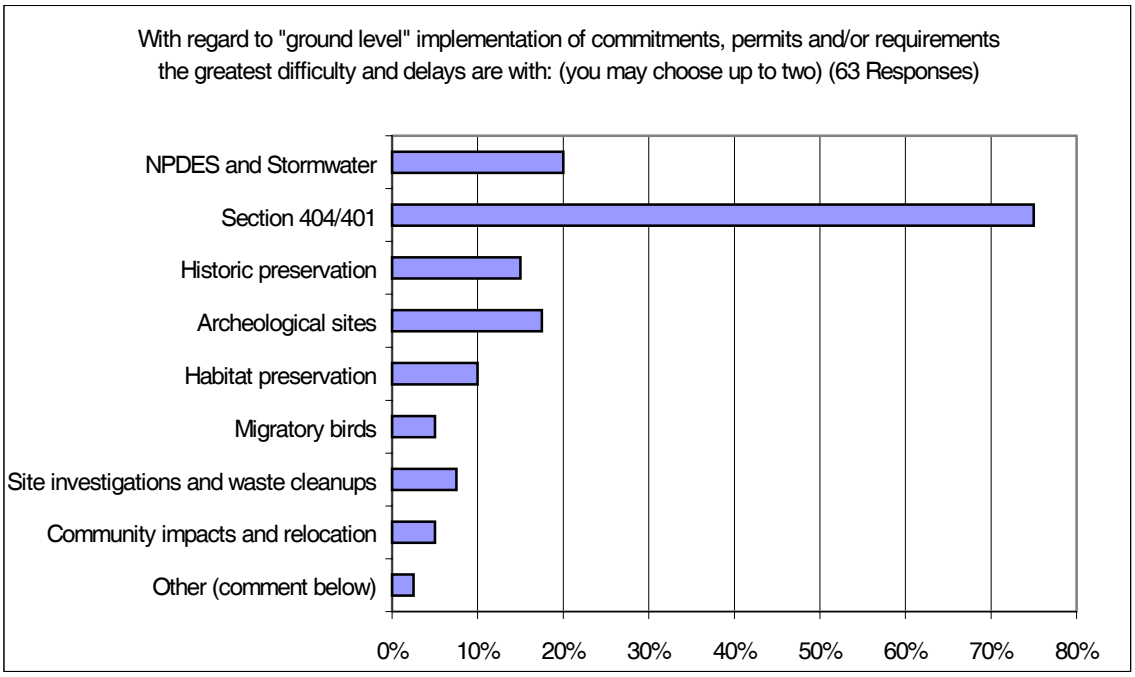
69. I do not have problems or undeserved delays from any of these agencies.

70. Too much time is spent on formalities instead of working out an agreement all agencies can work with.

71. USFWS is pretty good if there are no effects but if there are it does take time. The corps, again, is taking up to 60 days. IBWC has recently began using a timeline to process their permits.

72. If a protected animal is present or if an individual permit is required, then these will be the roadblocks.

## Question 7




### Comments on Question 7

73. Interpretation and inconsistency with the Corps makes this difficult.

74. The greatest difficulty with implementing requirements is the different (or hidden) interpretation of the requirements. Often there are disagreements about "potential," "possible," or protracted scenarios of adverse effects, that "could" happen regardless of whether they are specifically addressed in the requirements, regulations or law. Local offices of Resource Agencies have personal opinions and interpretations that impose "special" concerns that require additional mitigation.

75. We have had several projects where we have had to implement special commitments for historic properties. I can't really say that we have had undue delays though.

76. We have our greatest difficulty with Section 404/401 since we are usually trying to avoid impacts or trying to mitigate for impacts to wetlands, etc. We in the district just don't have enough experience or the time to ensure that the commitments/requirements are properly done in the field.

77. Implementation of commitments for habitat preservation is one of the most difficult especially for long term. Utility companies have a legal right to be within TxDOT ROW and if we have areas of habitat preservation within our ROW, it is difficult to ensure that they do not disturb these areas when they are doing utility repairs and new installations.

78. Some area engineers and some construction inspectors simply do not take the NPDES requirements seriously.

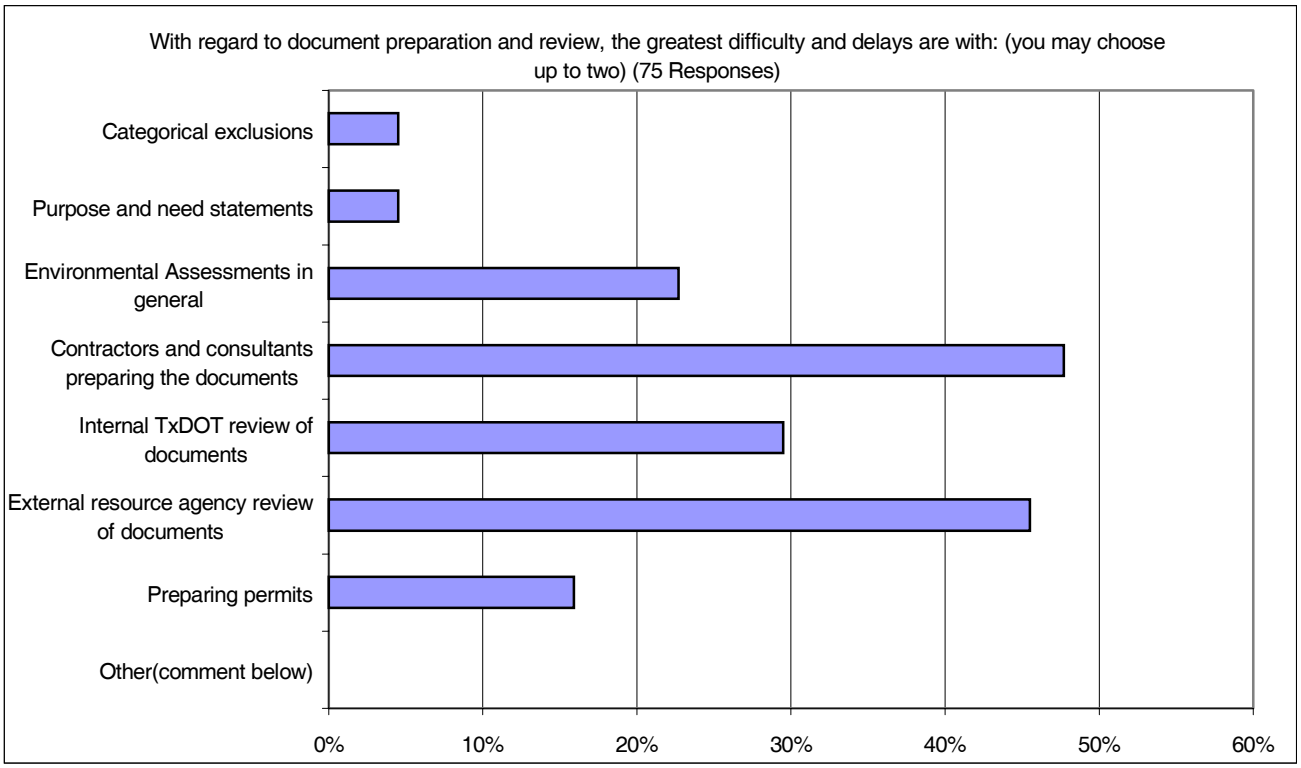
79. During APD we are almost willing to agree to any commitment in order to get the project let. We often have difficulty living up to these commitments.

80. COE and Coast Guard required information is very time consuming.

81. It is very difficult to keep up with the contractors, and they are just not very sensitive when it comes to the environment. We have had and are having problems meeting commitments because the contractor and inspector are not complying.

82. Not sure what "ground level" means. I answer using the meaning that ground level means construction. In that regard, the ability must rest with the inspector but he is assigned 3 or 4 projects at once and can't be there enough and isn't typically trained well enough so it becomes the responsibility of the contractor who is really concerned with production.

## Question 8.




### Comments on Question 8

83. I don't see the purpose and need of a project developed or passed on from the planning process. Most of the time, we as environmental specialists are dealt the task of making up the purpose and need statements. The purpose and need should have already been established and documented. If they are documented, they are not passed on to us unless it is a very large project with a lot of prior coordination between the TxDOT planning section/design section/MPOs. The link between planning and the environmental process is very weak and ill established.

84. Lack of understanding of highway projects with regard to the resource agencies.

85. Allowing consultants to take over a large part of our work was (and is) a big mistake. It does not lessen our work, but adds to it. We have to coordinate with more people on one more layer; we have to review and comment on documents we know how to do ourselves, and wait more time, hence delays, while they correct them. It has created another problem in which we train professionals, who then go to work for consultants, costing us (TxDOT and taxpayers) in more ways, and causing more delays. This is one specific area that is broken, and should be fixed, and would help reach the goal of

speeding up the process without damaging it. If gutting the process is not the real goal, this is where a major focus should be.

86. Documents need to be written concisely with respect to Purpose and Need so other alternatives that do not meet the Purpose and Need and do not have pubic support can be dismissed.

87. We have difficulty receiving sufficient information in the environmental documents prepared by consultants.

88. Again, my earlier comment about ENV reviewers applies. We have even gotten comments about punctuation--not something that significantly changed the context or meaning of the document for the public. It just seems like some of the reviewers don't understand their job is to help clear these documents, provide guidance and what things are significant enough to comment about. I think over the last few years we have learned more about what the resource agencies need/want in a document and most of us have worked pretty hard to include those items in our documents. Bottom line — the reviewers seem to be justifying their existence by picking on unimportant things for revisions. If it is not critical, don't bother with it! XXXXXXXX and XXXXXXXX are terrific; both are very receptive to phone consultations with you while you're preparing the documents. There are others who are also very helpful, giving credit where credit is due.

89. The use of consultants to prepare documents is supposed to save time since TxDOT does not have the resources in-house to complete all the work necessary to meet letting schedules. However, some consultants require a lot of direction, monitoring, review, etc. and their documents require numerous re-writes to adequately address all the issues. In addition, TxDOT staff is then not as familiar with the commitments and issues on the project and we often run into difficulty once the project goes to construction. (Example Spur 3 CSJ 3596-1-2)

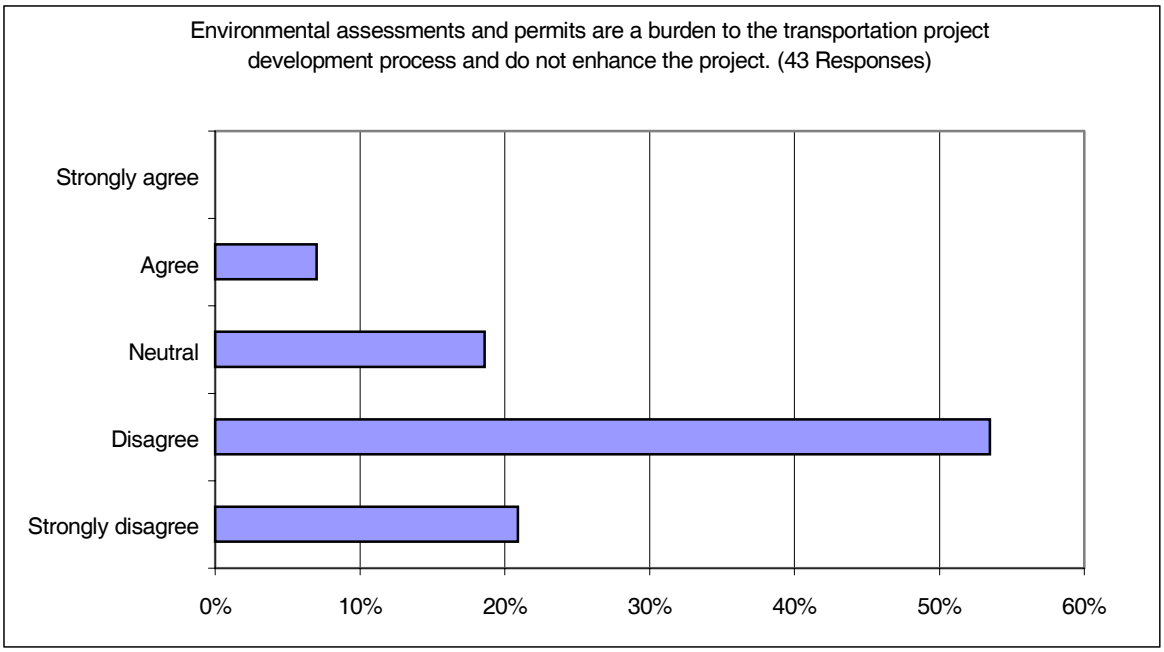
90. Consultants are a joke. Not to mention a waste of time and money!

91. Mutual goals of what is to be accomplished should be more clearly defined.

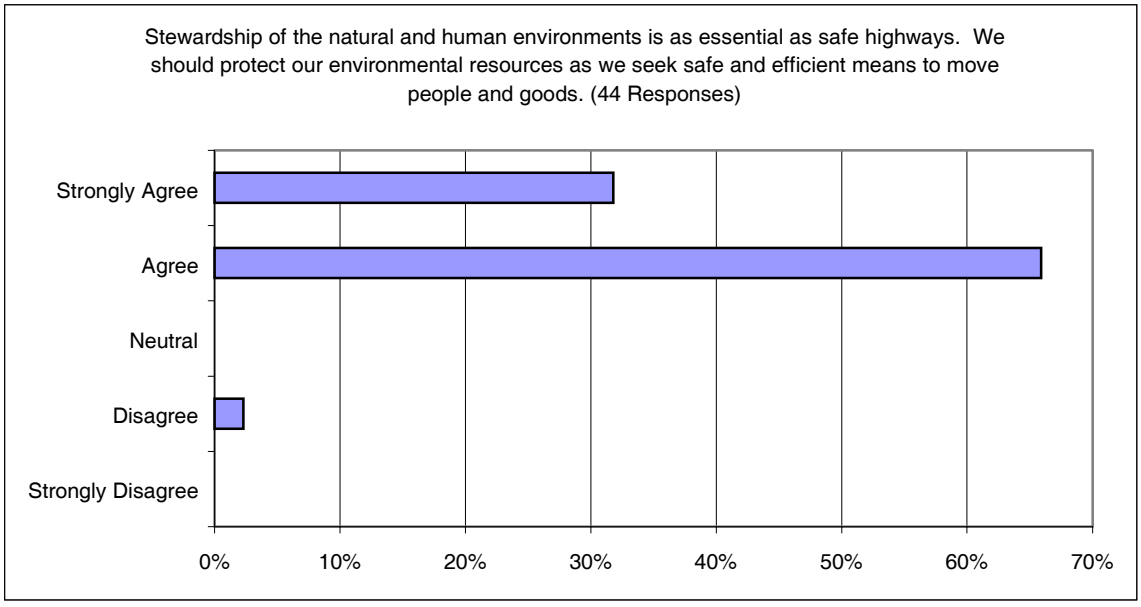
92. Documents are taking longer to prepare. CEs used to be 3 pages long. Now they are 10 and EAs is more like 20. ENV is suppose to take 15 days to review and in my case they are taking more like 21 days.

93. Length of time it takes to review a document. ETS is not a useful tool for tracking the document. The ECs do not have the same access to ETS that the project managers do. The project managers have not been forthcoming on the comments in a timely manner. At times we have received notification that a project has been clear until the project has nearly been completed.

## Question 9




## Question 10



**Comments on Questions 9-10**

94. Transportation projects are usually thin corridors that do not disturb large areas of the natural areas, habitats, etc. It is usually the private developers who wipe out swaths of species habitat, wetlands, change drainage patterns, etc. Yet DOTs are held too much higher standards than those expected of developers because DOTs utilize federal dollars. That scenario does not make sense.

95. Many times, decisions are already made, the env. doc. is just an exercise in paper pushing. I agree resources should be protected and I think the environmental process is beneficial. However, getting early coordination and input is not very effective. When resource agencies are involved in the scoping process of a large project, they say there is not enough information available in the early stages of project development. They are more interested in the quantification of impacts (how many trees and what species, how many acres of wetlands and what quality). These are questions we don't have answers for at this early stage and won't have for a long time. At this time in project development, the resource agencies then can offer only very general suggestions regarding the protection of resources. Resource agencies rarely participate in the scoping and public involvement processes anyway.

96. Additionally, some of the "required" items in our documents are a waste. Such as statements regarding the executive orders for invasive species and beneficial use landscaping. This should not be required statements, it should be internal policy from the division that is responsible for seeding and landscape specifications. The FPPA is another requirement that has little value and is a waste of time. I can't think of any project that required coordination with the NRCS.

97. Unfortunately, there are those who are convinced that the "natural environment" and highways can never coexist.

98. Let's never forget the intent of NEPA, which is to appropriately consider the potential physical, biological, economic, and social effects on the quality of the HUMAN ENVIRONMENT. Thus human environment should be more important than the natural even though both of them go together.

99. But we also need to be reasonable. If districts would call a reviewer in ENV and ask for some assistance before submitting a document with unique challenges, I am convinced because of my experience with some of the folks in ENV, it would be provided and the project would go much more smoothly. Some of the districts may have a problem with asking for help, but we've never been turned down.

100. Safety should always be our top priority but needed transportation projects can be designed and built while protecting the environment.

101. While the EAs and permits do put a burden on the process, the overall benefit is a better project.

102. Tradeoffs are required on any transportation project we undertake. Minimization of these consequences should be an agreed mutual goal between TxDOT and any resource agency or concerned citizen.

103. I think we need to protect the environment but we also need to build our projects to keep up with the demand.

104. Stewardship is an ambiguous term. What the regulations require is prudence. Therefore, on one hand you have "protect the environment at any cost" groups always in conflict with the "prudent and feasible" groups.

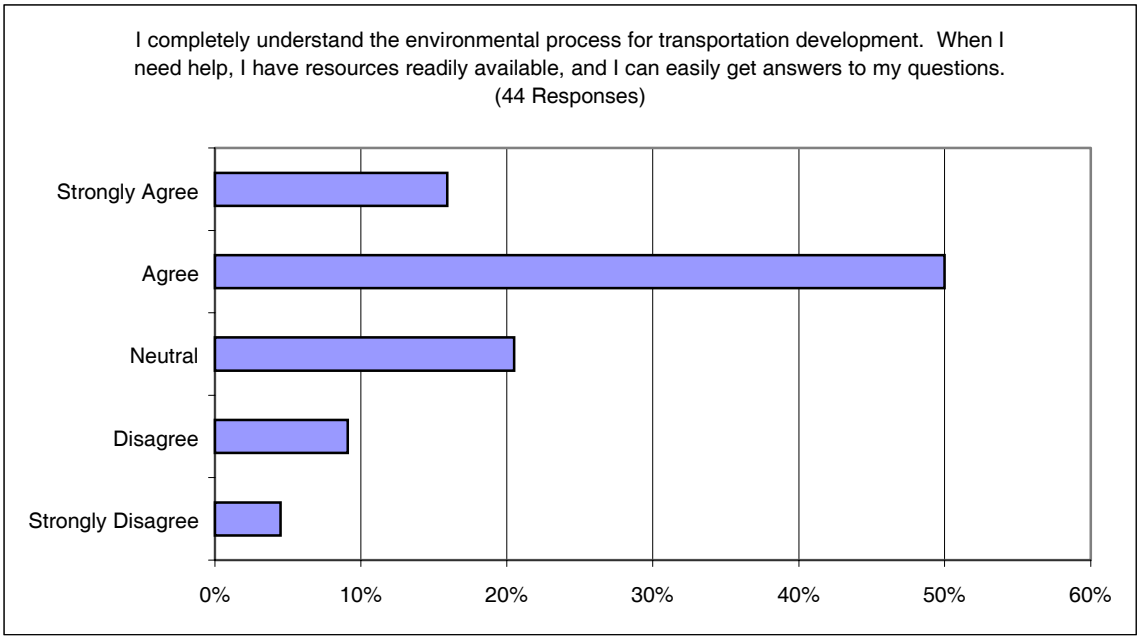
105. # 9 is a two part question with only one possible answer, therefore, neutral is the only answer that makes sense.

106. I think that we can build roads that are safe and protect environment at the same time.

107. No. 9. I could not answer this question because the two parts are antithetical. Assessments and permits are a burden but a necessary one. If you are using 'burden' in a pejorative sense, most would be inclined to agree. If assessments and permits at least prevent environmental degradation, that to me is an enhancement. On the other hand, if all you are considering is the narrowly defined project as just the road itself, assessments and permits provide no benefit.

108. No. 10. This question should be worded even more strongly. When surveyed, the public have for many years consistently supported environmental issues even in the face of tradeoffs. I agree very strongly with this support. Stewardship is more important, ACROSS THE BOARD, than the other issues and needs with which we are faced.

## Question 11

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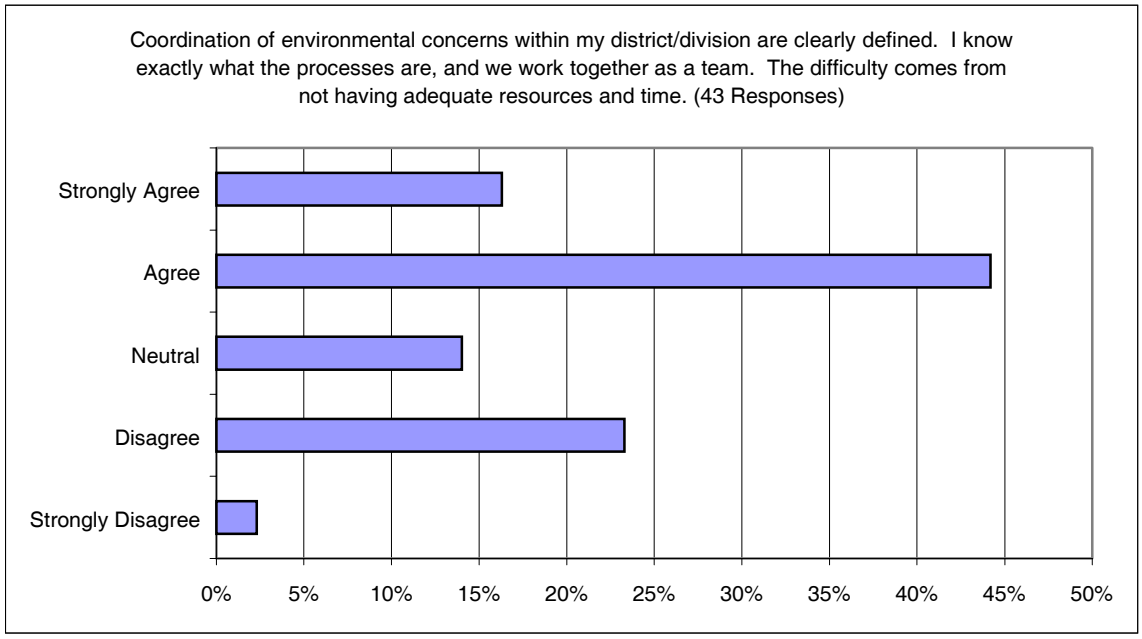

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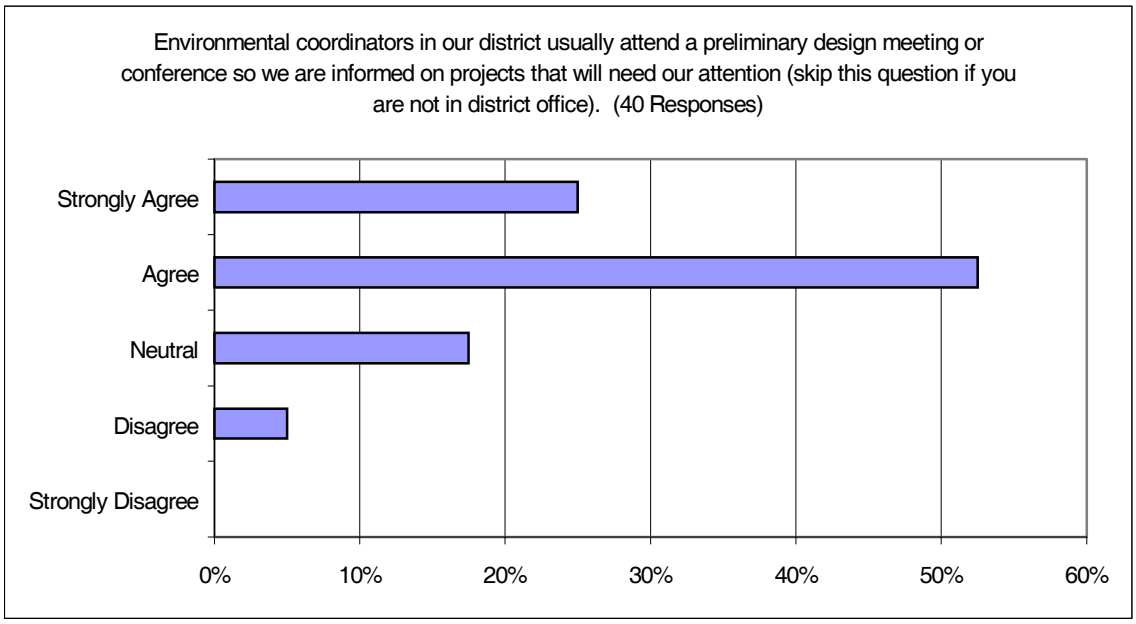


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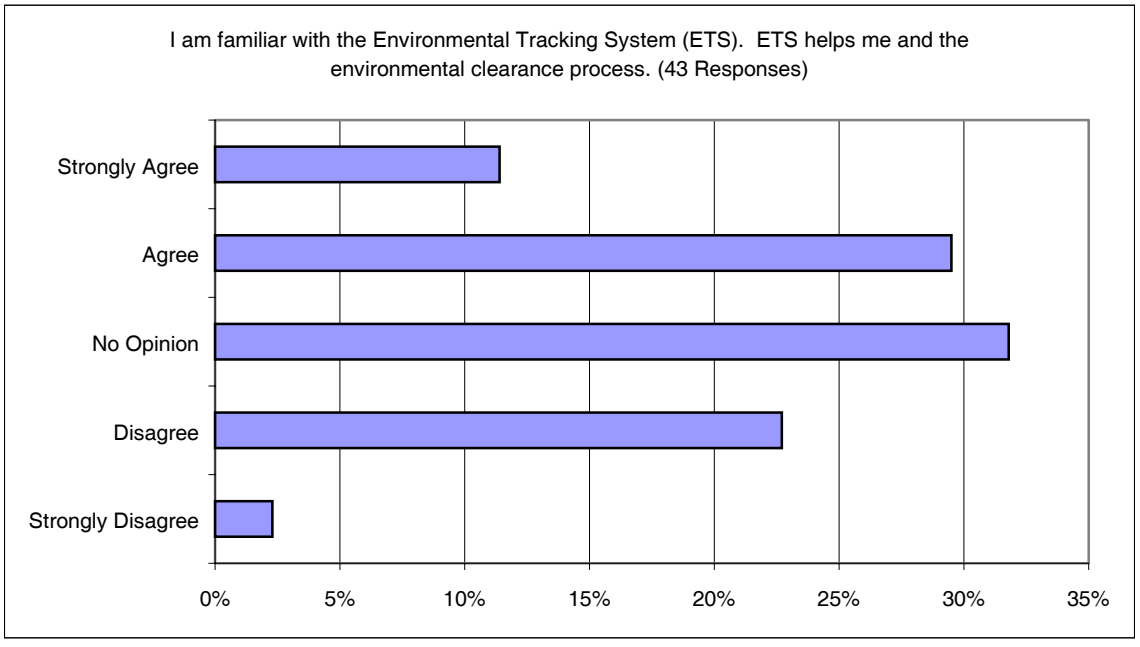

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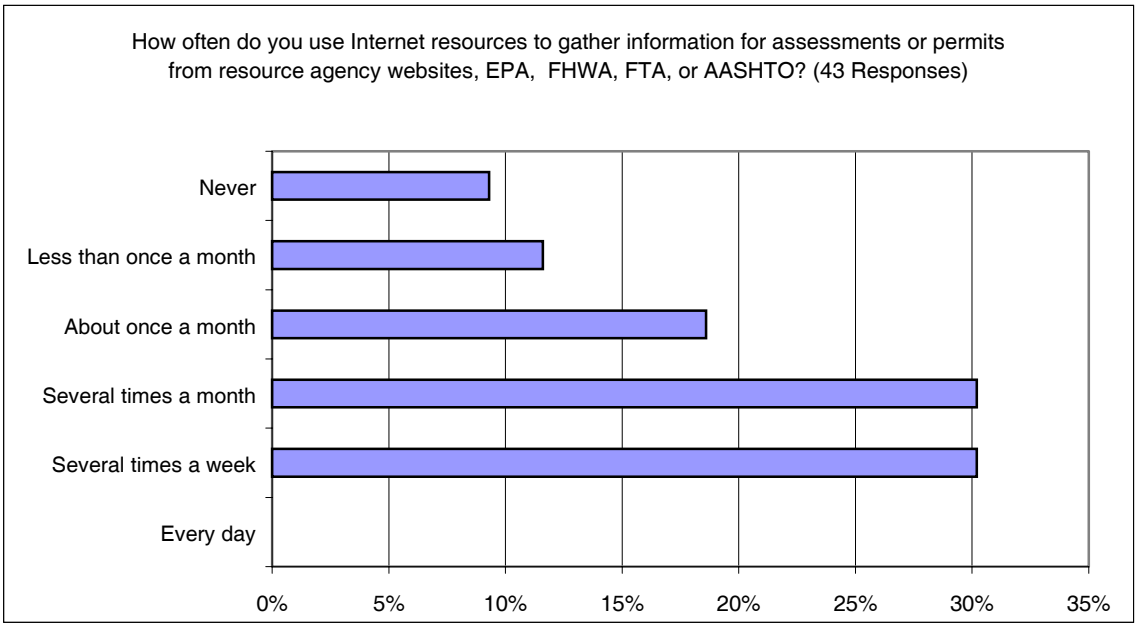


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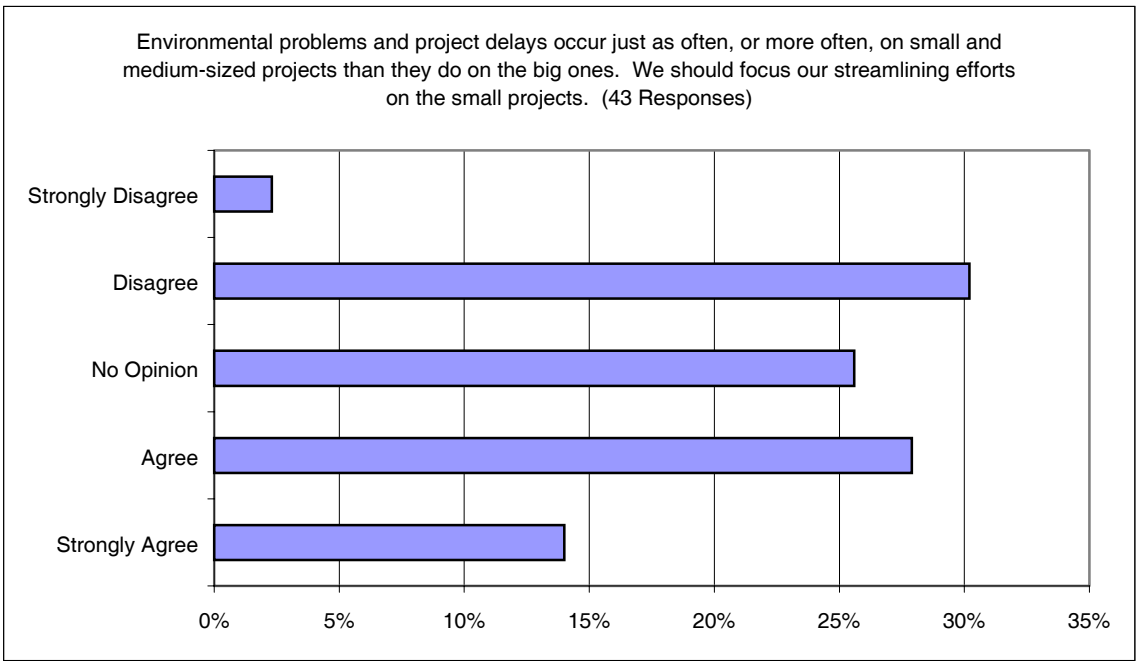

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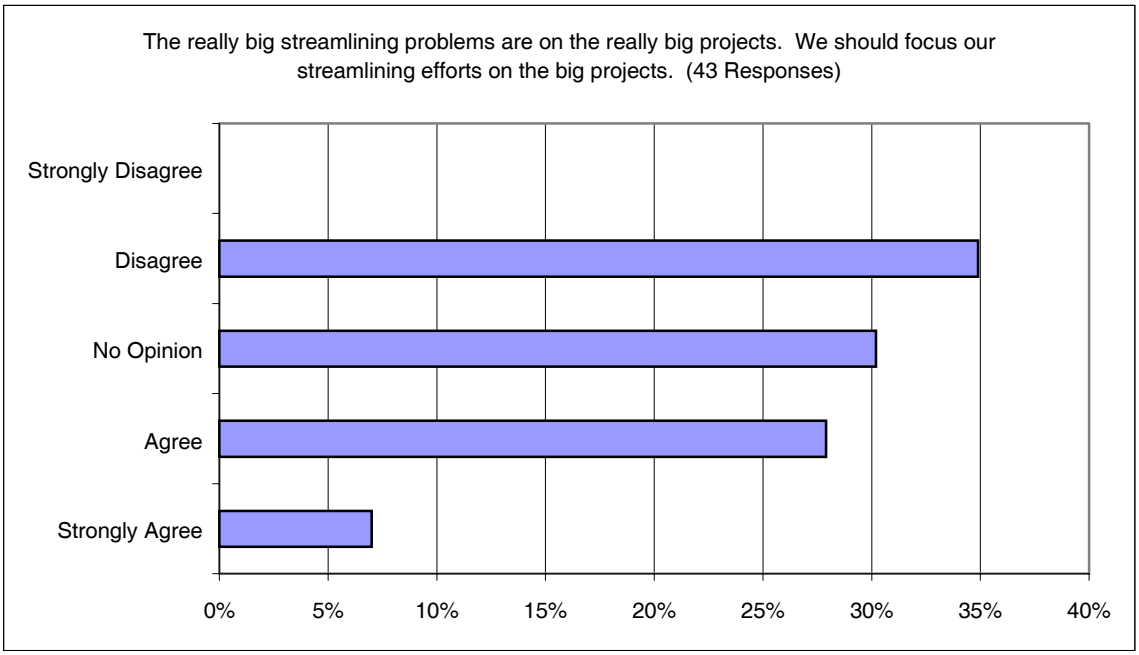


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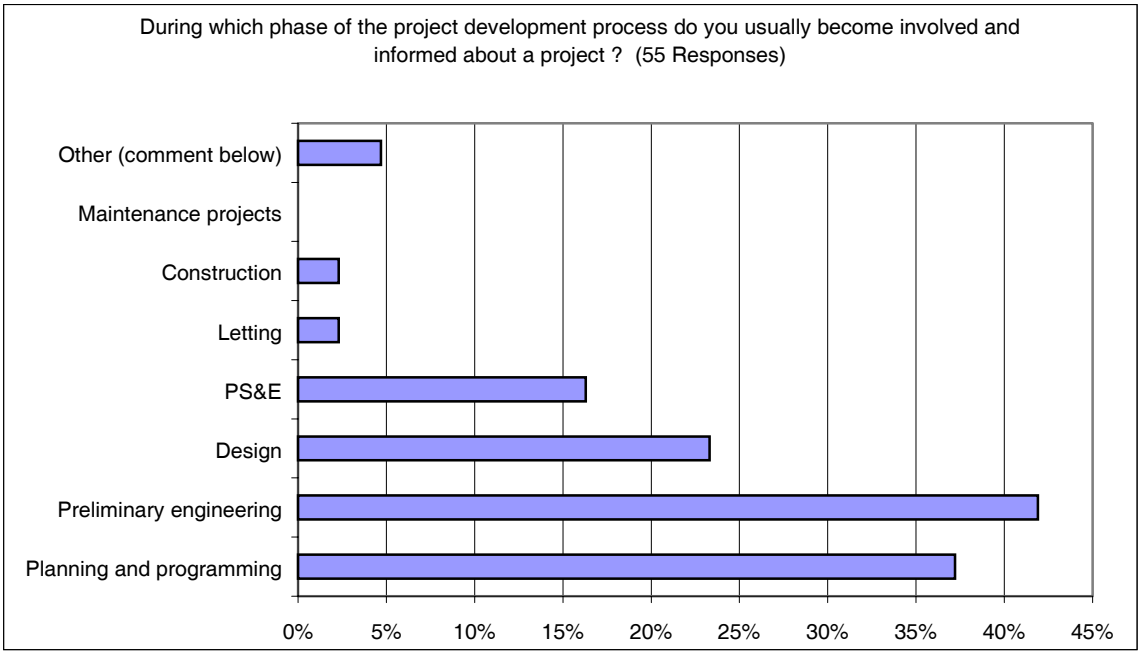

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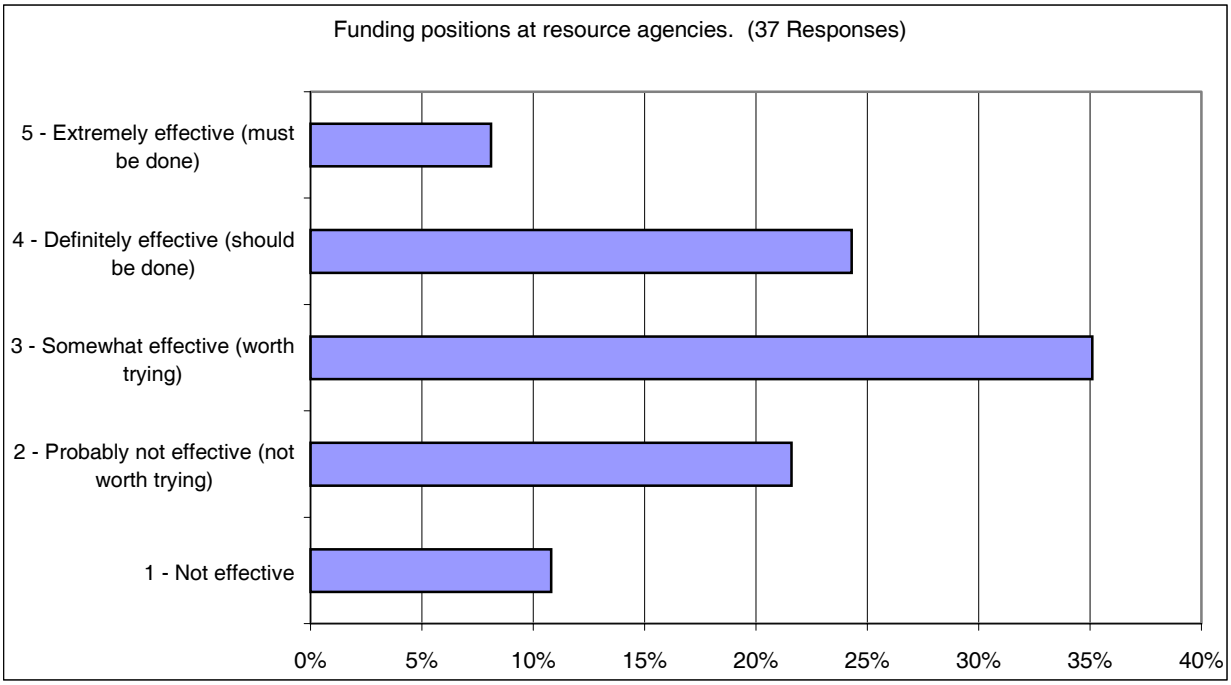


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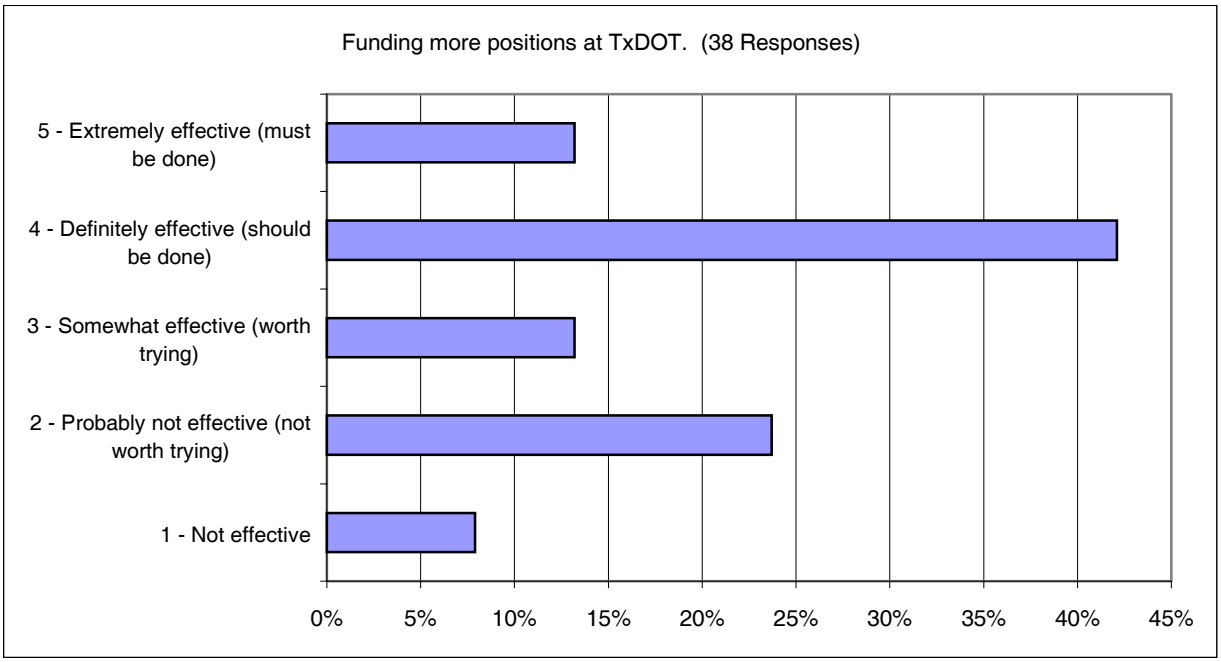


**Comments of Questions 11-20**

109. I do think that in general, the streamlining should focus on the larger projects. However, the medium size EA projects also require a lot of work and coordination. Regardless of the size of the project, any impact to historical/archeological or wetlands can result in a lot of additional time and work with little benefit. A 4(f) could result in months of coordination only to relocate the structure, or photo document it. A wetland impact requiring coordination and mitigation could result in months of coordination, only to plant 200 trees instead of 150, or withdraw 30 credits instead of 25 from a wetland bank.

110. No. 15. The impediment to use of Internet resources to help do our job is that we have to ask individually for Internet access, much like you would have asked for a chair or permission to use the telephone.

111. No. 16 & 17. These are misleading questions. Issues are where they are. The only way larger size affects issues is by statistically increasing the likelihood of encountering them.

112. No. 15 — not all individuals within my district have Internet access. I must rely on others to provide me with access so I may do research. It needs to be restated to the districts about what type of info. and how much info. is obtained off the web. Grant internet access to everyone. There are checks already in place for monitoring individuals.

113. On big projects the involvement usually begins in the planning, programming or prelim. eng. stage. However, on CEs, often our involvement does not begin until the Design phase. It can also depend on the Engineer responsible for the project.

114. Streamlining should be done on major projects with significant (depending on the context and intensity) social economic, and environmental issues such as for our FONSIs or EISs. Streamlining should be omitted for almost all CEs unless there are one or more significant impacts. We get great support from ENV, FHWA staff and resource agencies such as TPWD and TNRCC.

115. Our district has the planning (MPO coordination), public transportation and environmental in the Advance Transportation Planning Section.

116. Streamlining efforts should be general enough that they work for all types of projects. Also, our environmental staff attends design concept conferences when they are aware of them. In our district, it is the Area Office that schedules them and some are better than others about making sure that we are notified.

117. 16-17. The environmental process affects all projects. Streamlining the entire system should speed up the approval process for all projects. No particular category of project size should be the primary focus.

118. Question 16: — we often get hung up on archeological issues on bridge replacement projects in XXXXXX Texas.

119. Question 17: I'm not sure that the size of the project necessarily creates difficulty. In my opinion, how the project is developed? is there a plan? a schedule? an idea of what needs

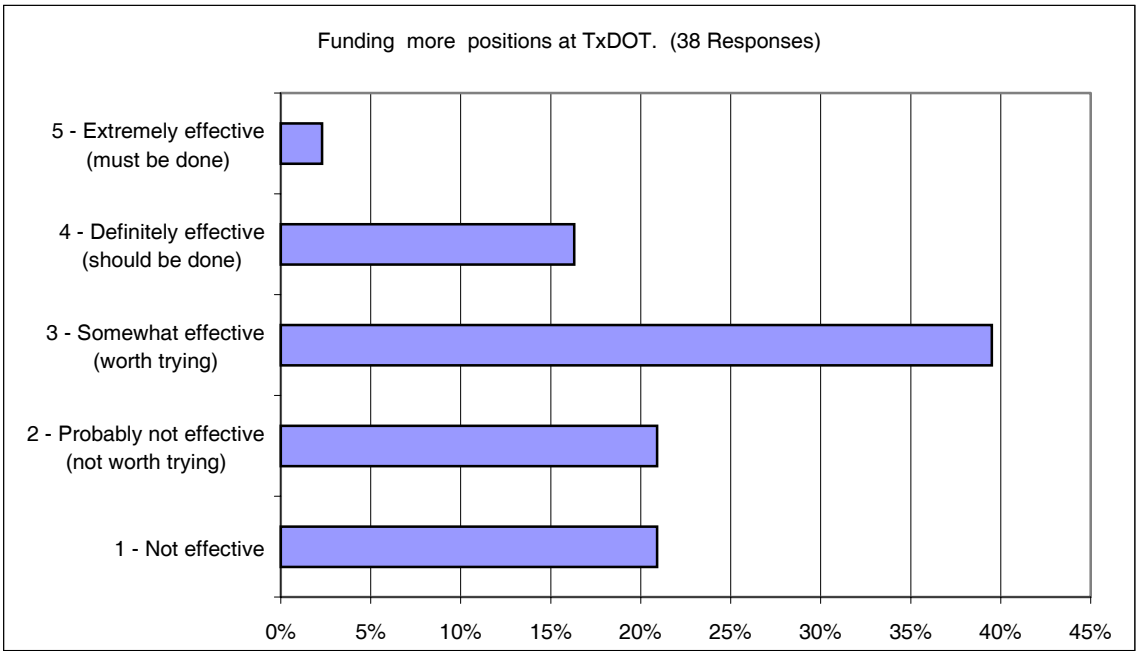
to be done next? who's doing the work — consultants? in-house? anybody? has more of an impact on the difficulty of the project development process.

120. Too often politics come into play and our ability to establish goals and progress are sidetracked.

121. On several of these questions, you are asking 2 or more questions and are asking for only 1 answer. I put neutral on several answers since one definite answer does not apply across the board. i.e. # 12, 16, and 17.

122. ETS is not a useful tool for tracking documents. We have adequate resource but not enough time. Our EC is becoming more involved early in the process.

## Question 21

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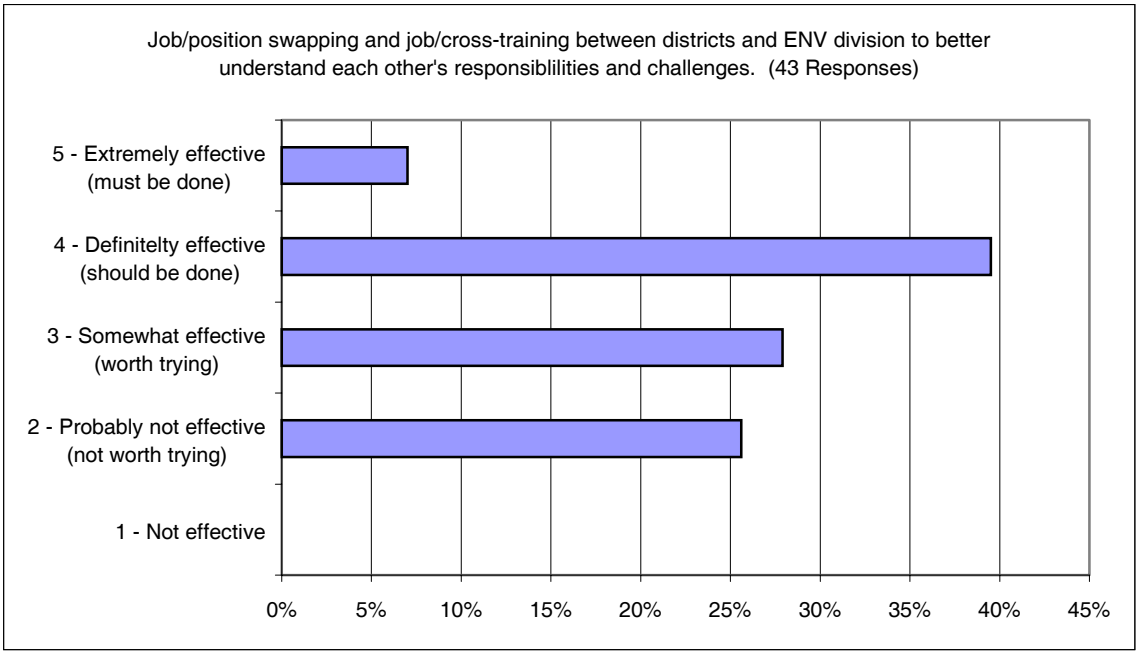

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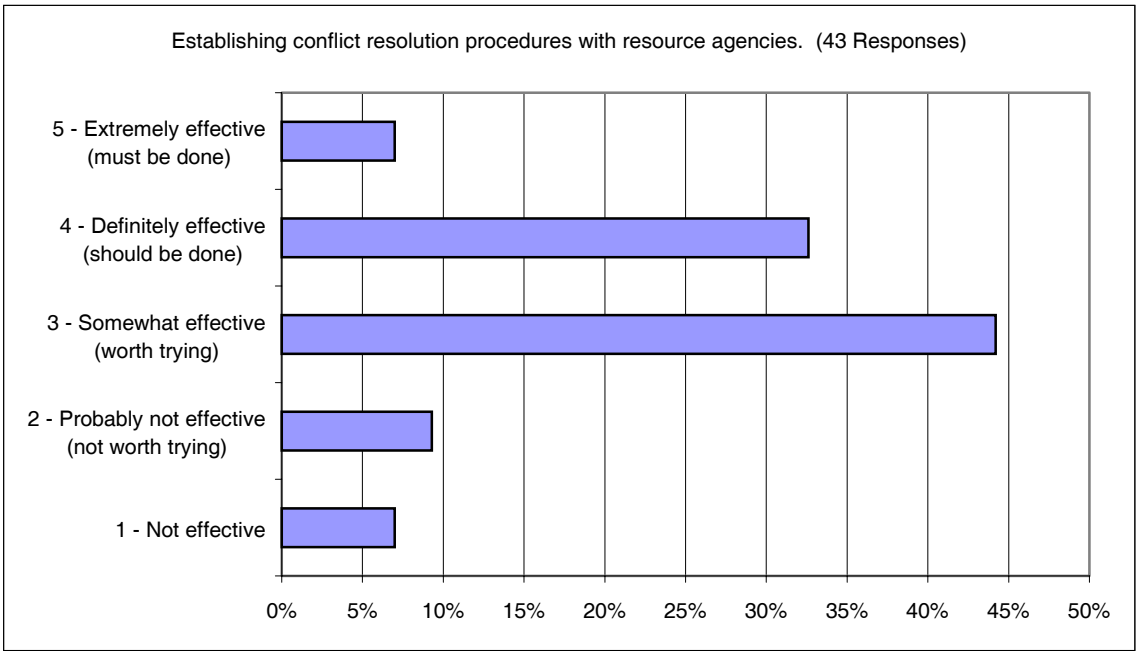


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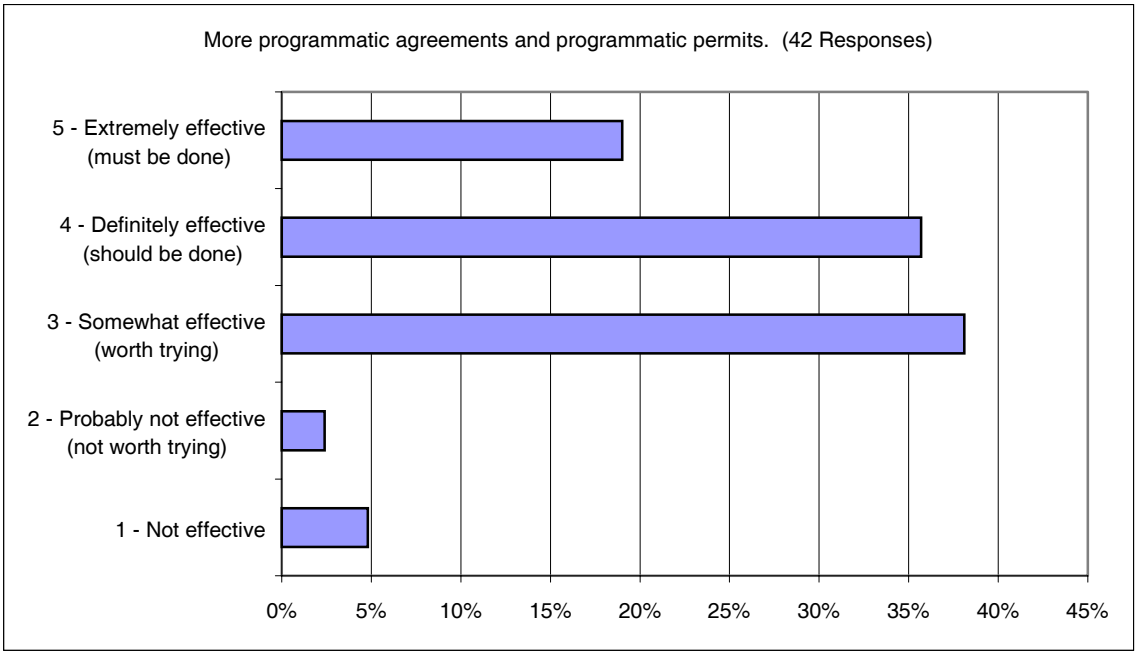

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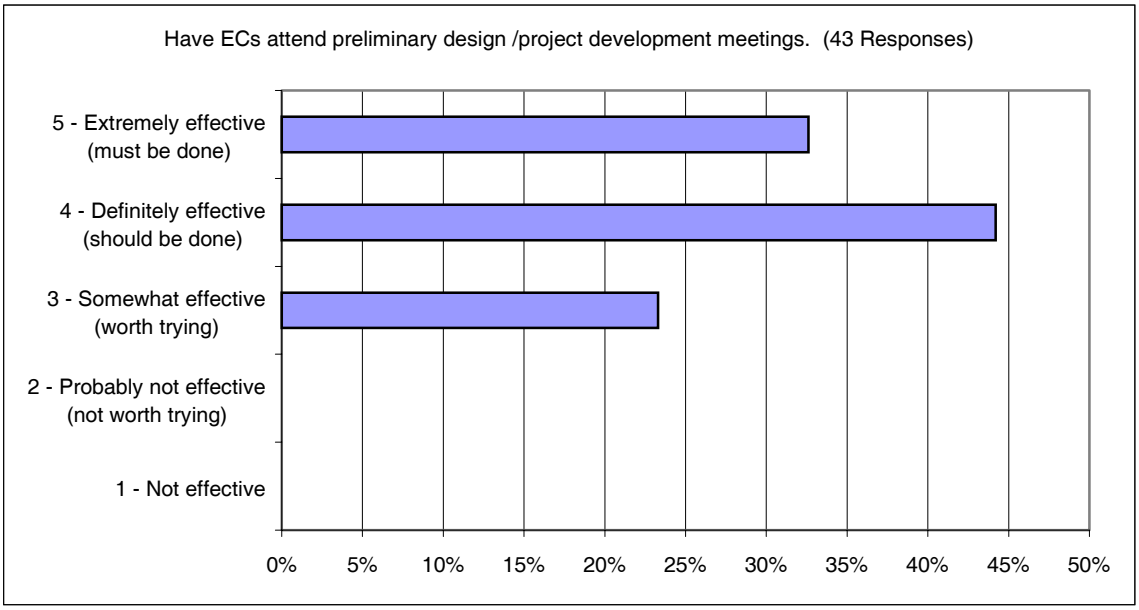


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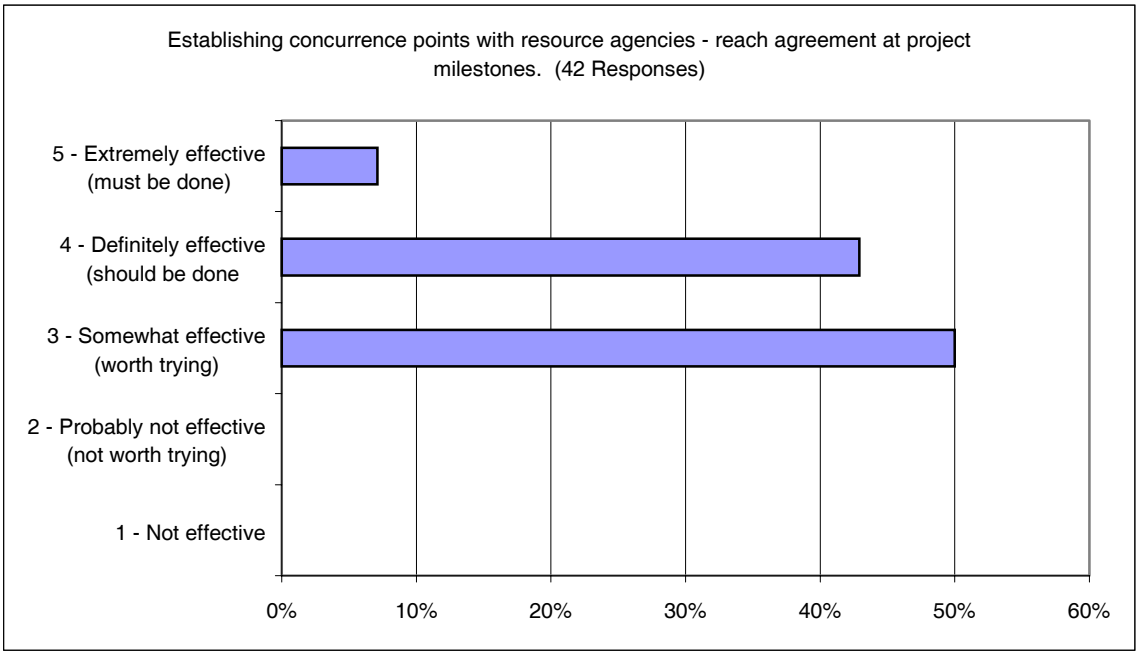

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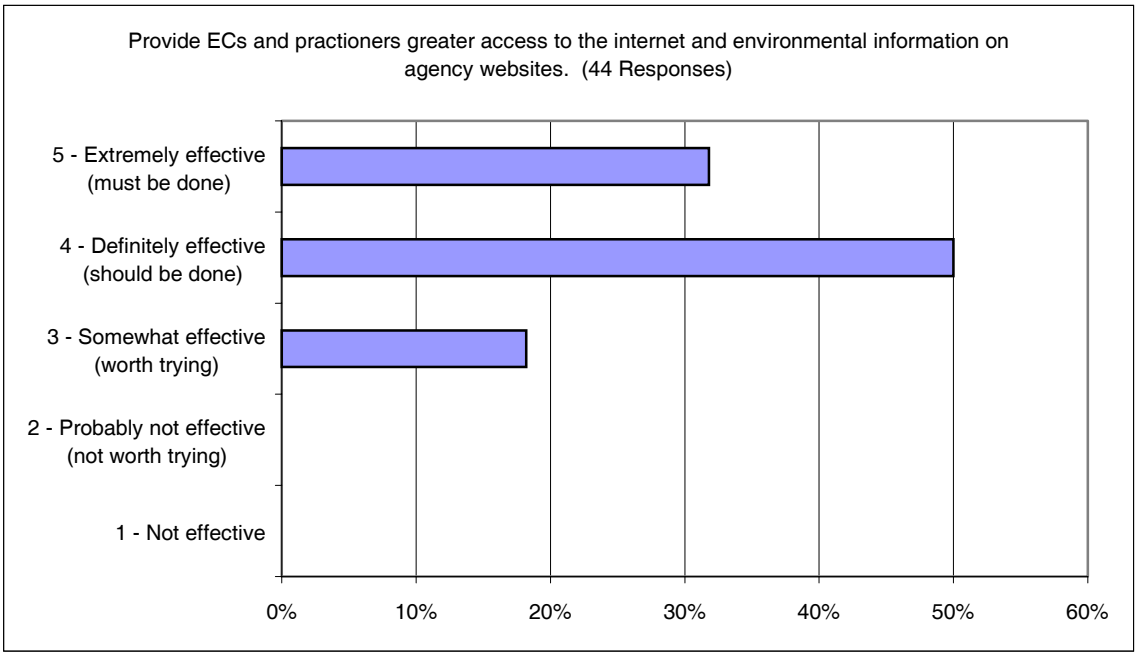


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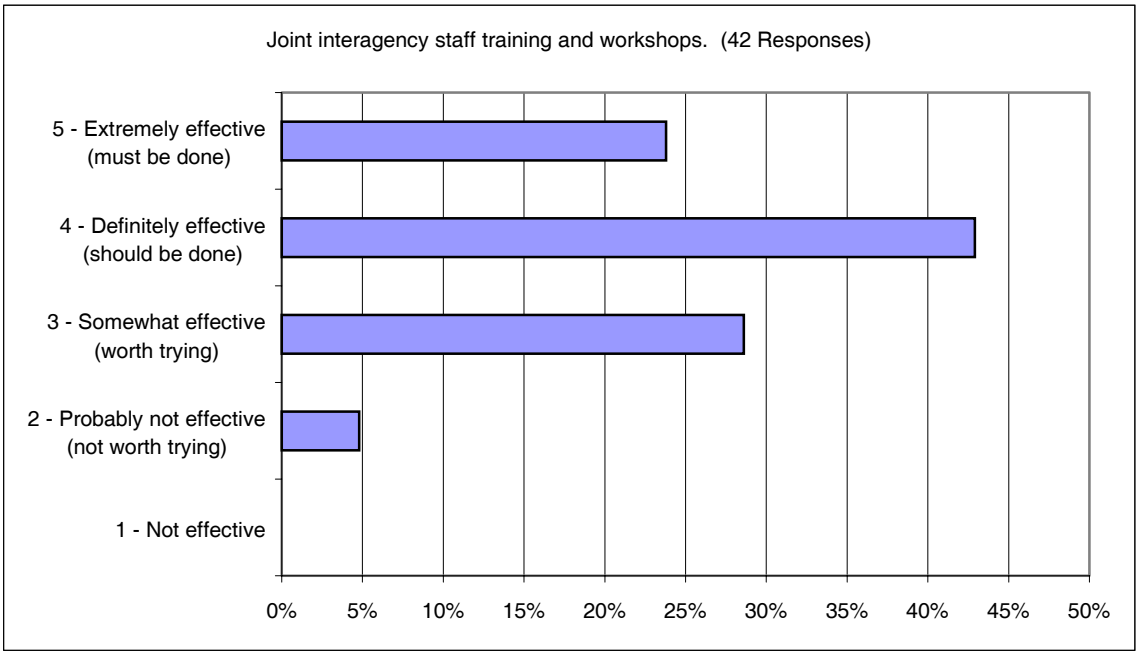

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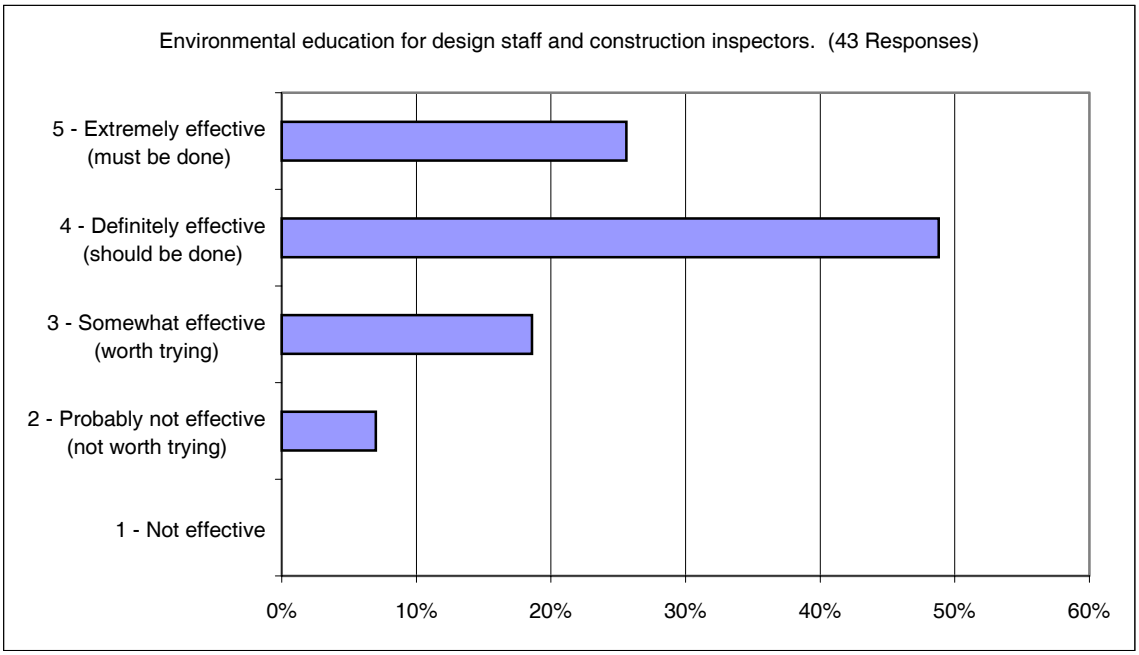


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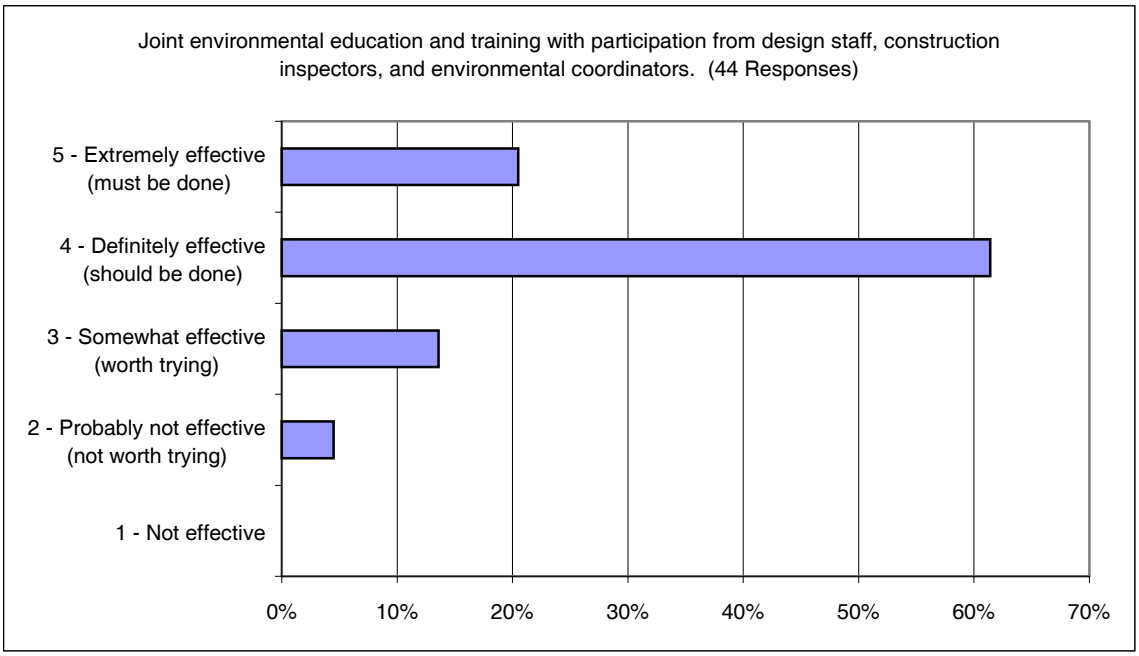

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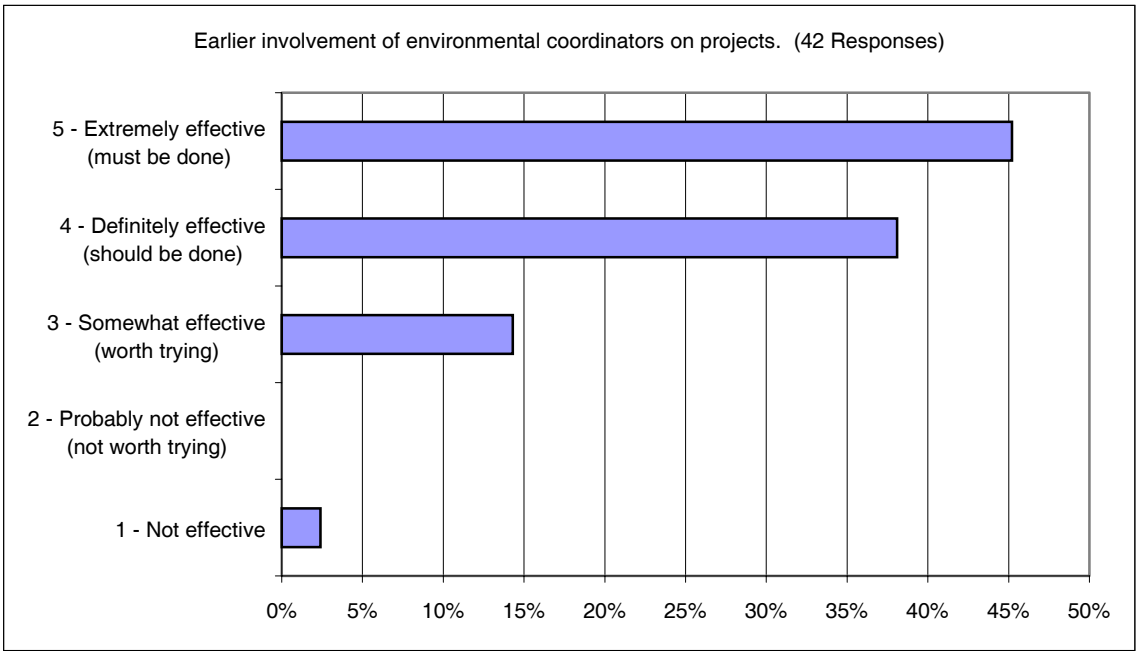


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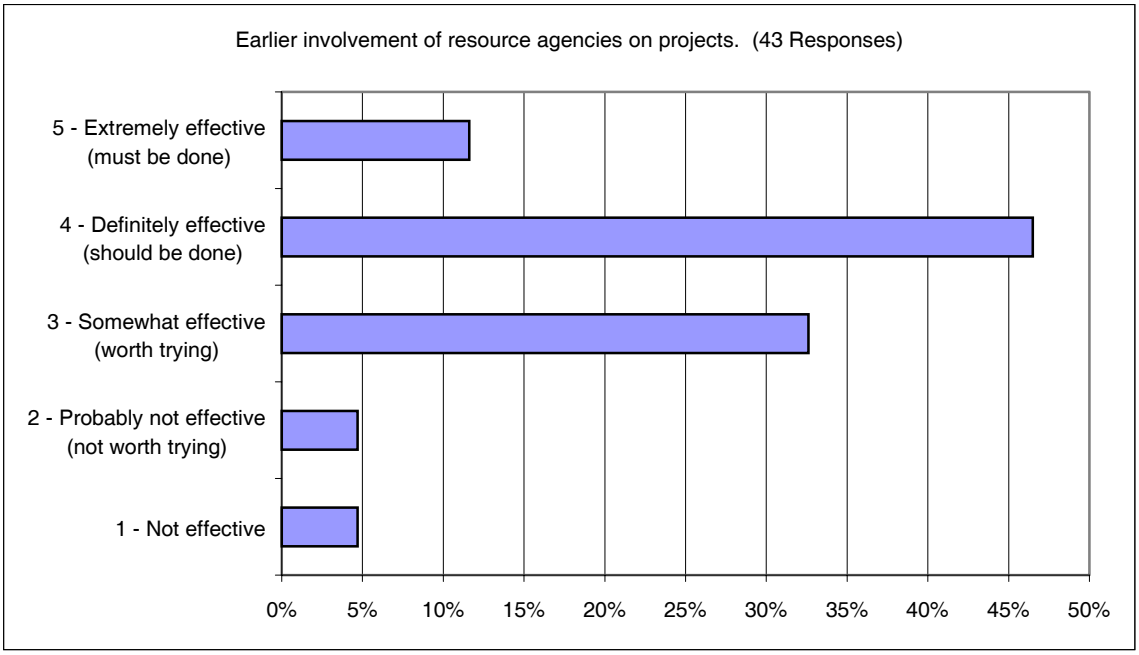

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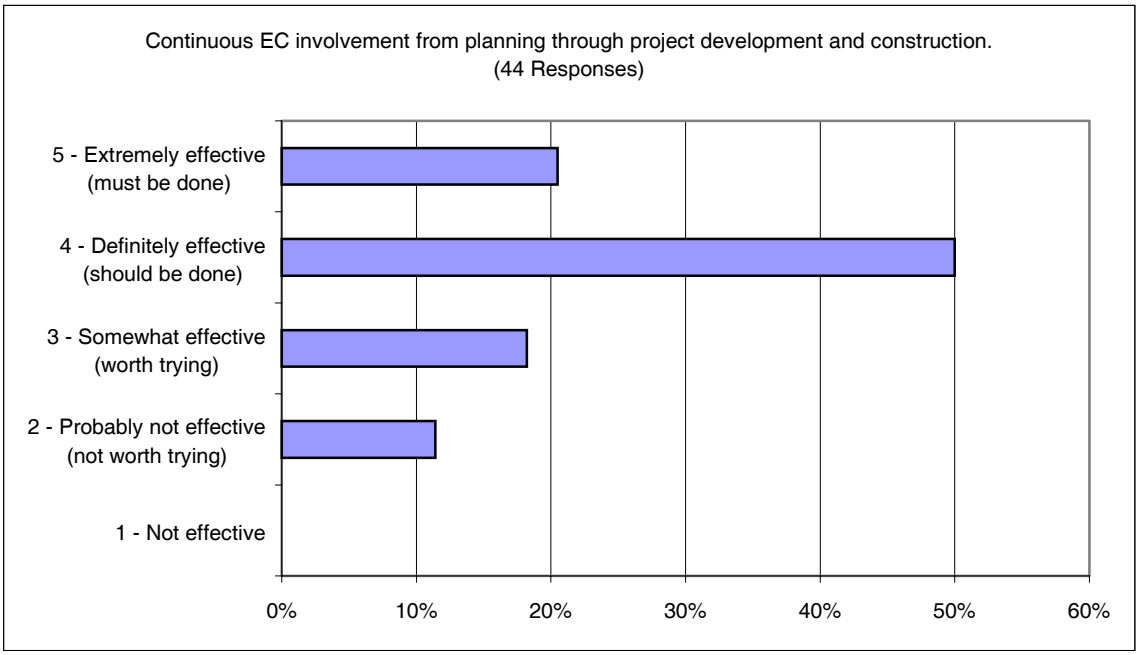


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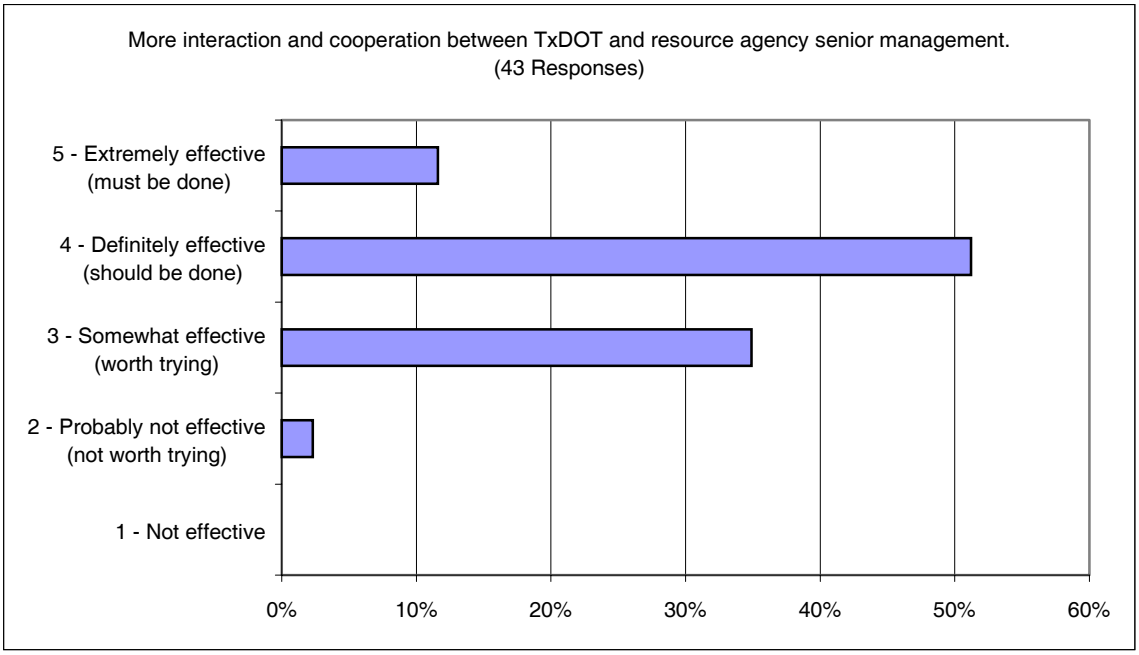
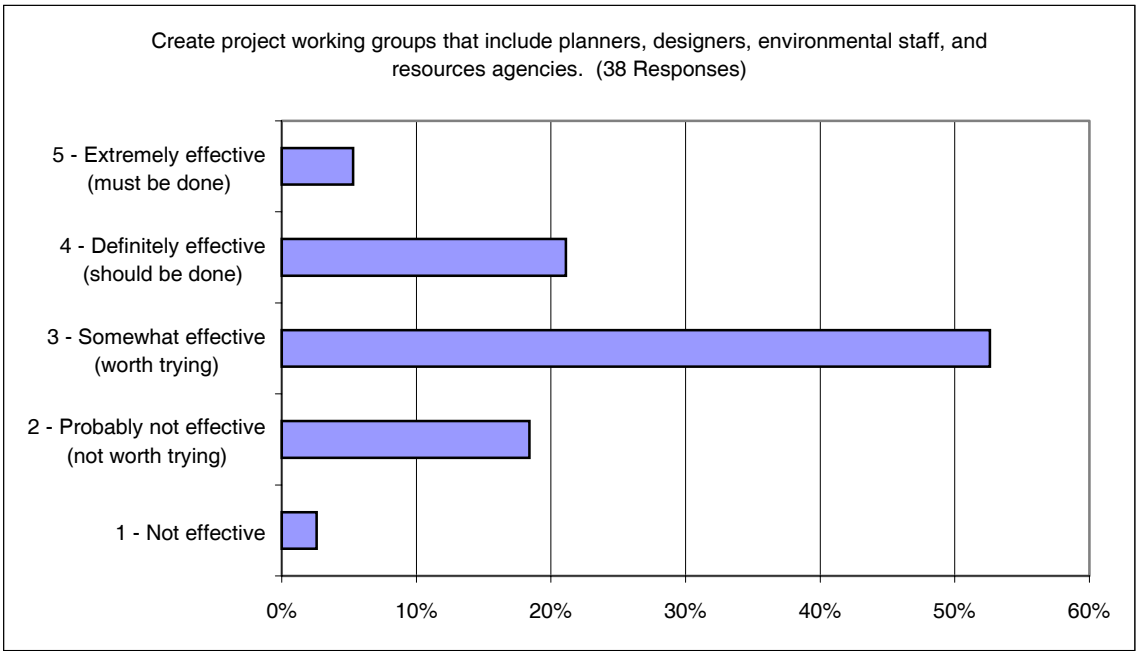


## Question 35

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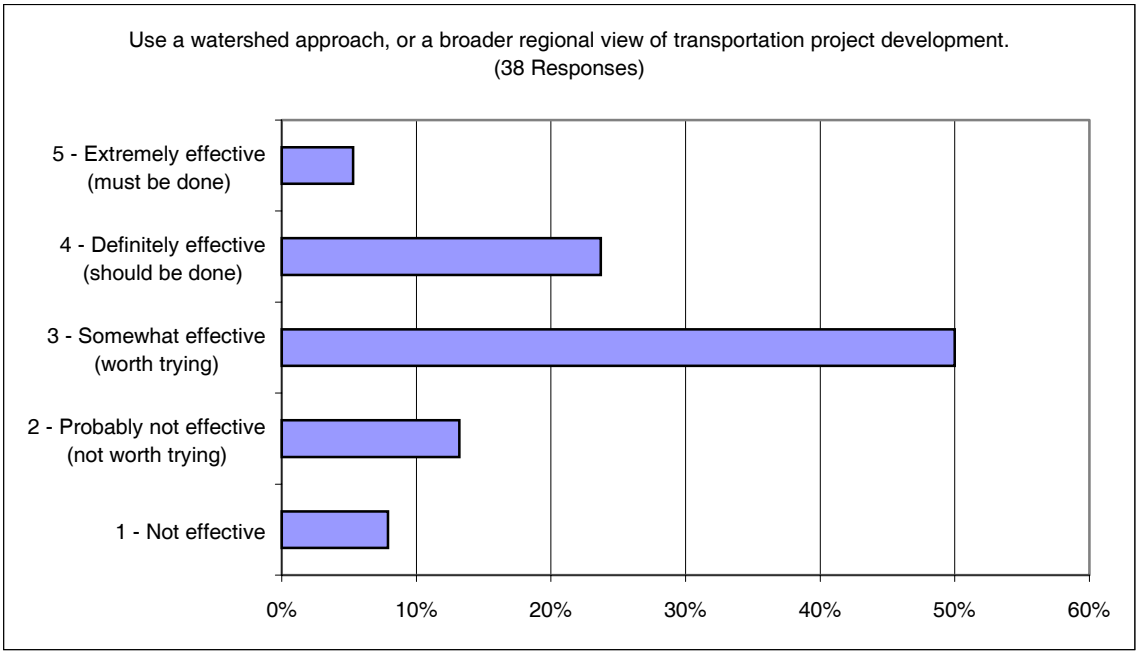

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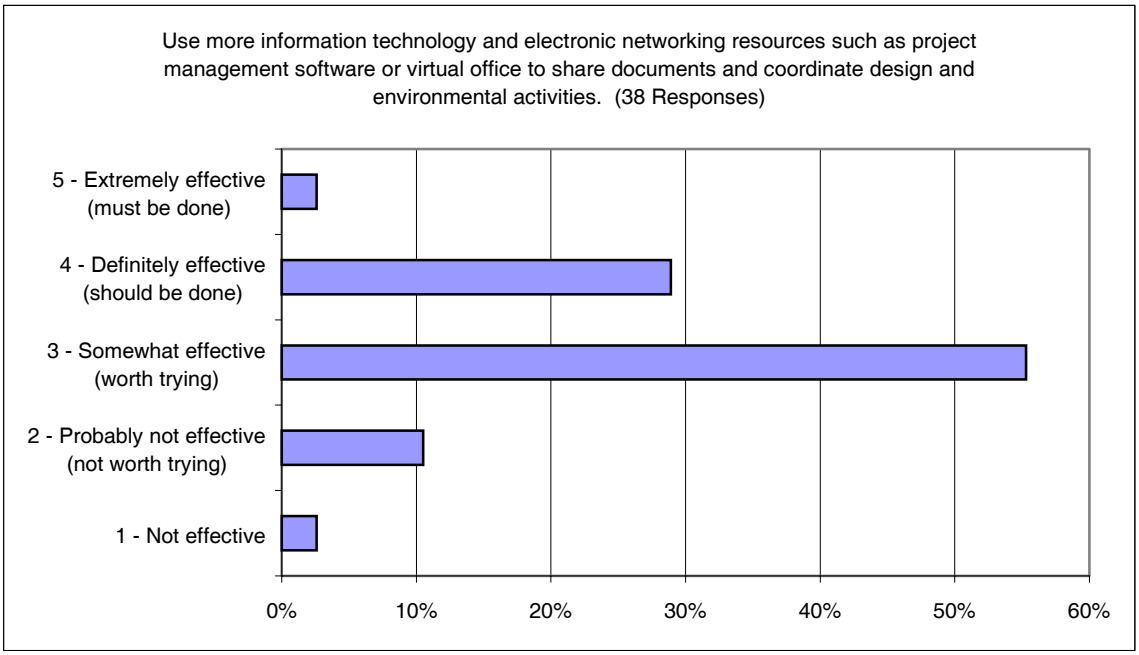
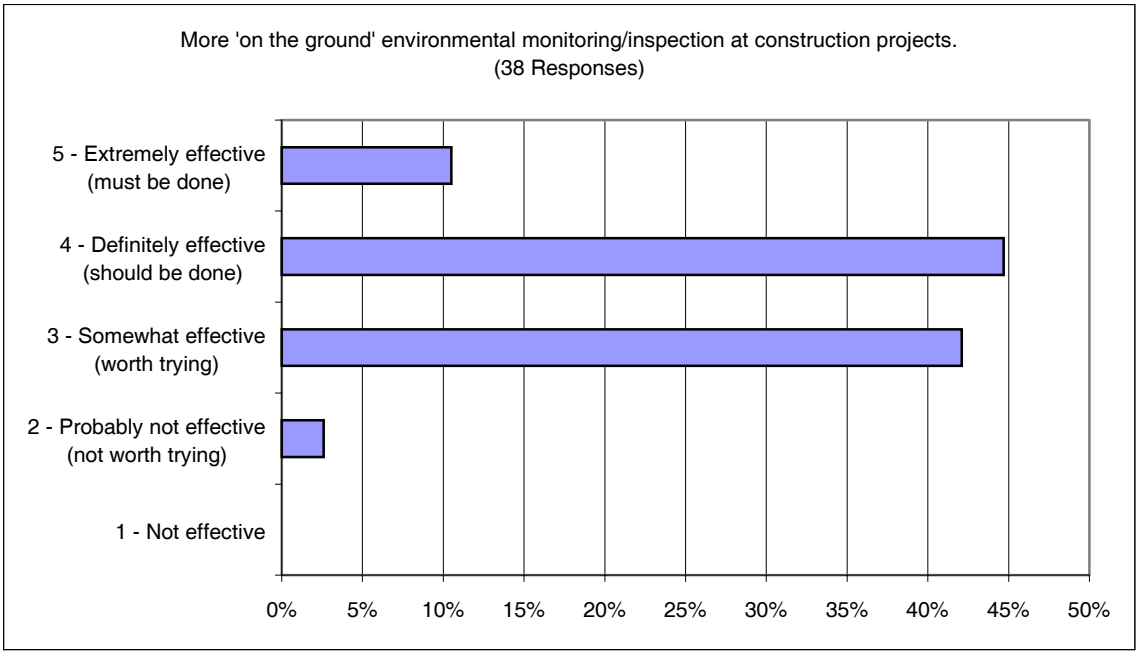



## Question 38



**Comments on Questions 21-38**

123. I do think that more on the ground monitoring of projects needs to occur. However, I don't think that the EC's should be doing it. I think that each district should have a person(s) located in construction section of the district that is a liaison between the design, environmental, and construction sections. This person would have an environmental background to communicate and understand what is in an environmental document and be able to communicate with inspectors and designers to solve and prevent violations. ECs is now strapped to get projects let, that is the driving force in the districts, the letting schedule. ECs do not have the manpower or time to adequately monitor construction projects.

124. The turnover, specifically at ENV, has hurt the intra and interagency coordination process.

125. Getting resource agencies to attend preliminary design concept conferences has been difficult. They say we don't have enough information available at that time.

126. Nearly all the 1s and 2s above are suggested activities that have been previously discussed or actually implemented. Low ratings of effectiveness may not reflect bad ideas, just previous failures.

127. All the above suggestions are great and should be implemented on a regular basis.

128. Job swapping/cross training for division personnel would be helpful. Additional use of consultants is probably going to happen even though we haven't seen the streamlining benefits on our projects. Resource agencies, especially those with MOAs and MOUs don't have the comfort level yet with a lot of the environmental consulting firms. In addition, in order for consultant use to streamline our processes, TxDOT would have to feel comfortable with them making decisions/commitments on our behalf. Some basic ground rules are needed.

129. I have no problems with either TxDOT's Environmental Affairs Division, the FHWA, or resource agencies. Review and oversight of project development is a part of the job, and, from my experience, Environmental Affairs Division, FHWA, and resource agencies do these jobs well. Training is nearly always a good thing, and again, from my experience, classes are generally well presented and focused on what I want. Nothing will slow up a project more than hiring a consultant, if you do not want to build a project anytime soon — hire a consultant (how do we get rid of consultants?).

130. My motto: "Prior planning prevents pitifully poor performance."

131. To me the most important thing right now is getting the contractors and inspectors educated and get them to keep the commitments made. Some districts have probably developed good relationships with resources agencies where there should be very little problems coordinating with them; however they should attend some of our trainings so they understand our technical work. I think we need more environmental personnel in the district to do more inspection on the ground.

132. Adding more positions at the Division is not the answer. More positions are needed at District level. Our experience with consultant doing environmental work has not been good.

133. Let the people who have been to specific projects and designers who have seen the area have more input as to what actions would best serve TxDOT and the resource agencies.

**Comments on Question 38 – Please share a streamlining success**

134. SH 349; Terrell County; CSJ:0556-05-016 — I requested early coordination for an archeology survey because two sites were discovered on the project previous to this one. The archeologists visited the project and found a site. Further testing was done, a report was prepared and submitted and it was cleared by THC in time to be discussed in the document. The environmental document was submitted, approved and the project was let on schedule with no delays.

135. I constantly monitor our District Construction Letting schedule from the present to three years in the future. By doing this I am always aware of upcoming projects, which will require environmental documentation so I can collect data, prepare, and submit the document in a timely manner.

136. On several bridge replacement projects (CEs) we worked with the design engineers to avoid mature trees and impacts to historical resources.

137. If we know the special conditions of a permit early enough we can build an environmental commitments sheet so the contractor will know exactly what he can and can't do.

138. Several projects stand out that have in common early coordination, cooperation, and trust. These projects went through a process that was about as short as possible, while allowing all to be heard and the resources to be protected. We once had to buy property to compensate for habitat losses on a project. Property purchases are a slow process, yet it was done in a timely manner. On two other projects, we knew we had archeological remains, so we included everyone and worked out a plan. Not everything went according to plan, but it was much better than no plan at all.

139. A project area was within the Edwards limestone (sole source aquifer — EPA) as well as the Recharge Zone (Water Pollution Abatement Plan —TNRCC). Successfully negotiated an agreement for the EPA to accept the work of the WPAP document to also satisfy their requirements of coordination without the burden of additional and separate documents.

140. Dallas District - Loop 12/IH 35E project was a great success in streamlining. It was one of the 10 nationwide selected by AASHTO. CSJ: 0581-02-077; Dallas County. For information about streamlining on that project please contact Mr. Nasser Askari at (214) 320-6628.

141. Paris - Original design called for replacing an existing bridge structure with three concrete box culverts, which also included channel easement excavation upstream/downstream. During my on-site field investigations I noticed extensive

amounts of tree and drift debris within the project area. I was concerned that debris would become clogged at the box culverts openings and not function properly. Design plans were changed, thus resulting in construction of a new bridge with limited channel easement work. Early coordination/communication between environmental staff and designers is very crucial to TxDOT projects.

142. Corpus Christi - CSJ: 0101-05-026 US 181. Early on in the development/revision of the schematic for the above project, engineers and environmental personnel worked together. Endangered species habitat (Piping Plover) was identified and avoided after consultation with resource agencies. By doing this early and effectively, delays are hoped to be eliminated. The project is currently being cleared environmentally.

143. The JFK Causeway Project (CSJ 617-2-46) is an example of early involvement. The environmentally sensitive area and the diverse concerns over safety, water circulation, etc. required early involvement with the public and the resource agencies. This project has been discussed and planned for many many years but once we moved into the actual EA phase we held a partnering workshop with key stakeholders and resource agency personnel. We sent out questionnaires ahead of time and sent out reports after the workshop. It helped get everyone on the same page and put names and faces together of the people that would be involved.

144. Lubbock - FM 1731 shelterbelt problem: the district defined the problem, worked out a solution with TPWD, built the road, and mitigated impacts to a Depression-era shelterbelt.

145. Corpus Christi - On the US 181 Portland project (Moore Ave. overpass) we knew that we would have HazMat issues during construction. We had blanket POs in place prior to construction to handle petroleum-contaminated soil, treatment of dewatering fluids.

146. On FM 517 there was a project to build a retention pond adjacent to Dickenson Bayou. Early coordination using field visits with the COE and the designer allowed for construction of the project with no fill material into existing wetlands. One formal letter and a few emails allowed TxDOT to construct this project with only a letter from the COE stating, as described, there would be no COE approval required for construction of this retention pond.

    Also on this same project, design and construction measures were adjusted to avoid any impacts to tidaly-influenced waters of the U.S., and coordination with the COE was not necessary.

147. Pharr - In this district we have environmental commitment plan sheets for the contractor to follow. It is done early and they are placed in the PS&E but again the contractor is not following them. Good example project is Cemetery Road.

148. LFK - EARLY is the key. If I visit a proposed project and notice a habitat type that might later become an issue, I would get the resource agency person involved then. The results would be either no issue or a head start on dealing with the issue.

149. I have a form, which I request the engineer to fill out and send to me. The information requested by the form serves two purposes. The first is to gather information that I need and he has probably already looked up (such as who built the existing and when). The

second is to help the engineer consider the appropriate issues in the conceptual stage of project development. Once the engineer has completed the form, I can dangerously assume that the project has developed enough for me to get involved. This is usually long before the PDC. Sometimes, I fill out the form at the PDC but if I have the form before the PDC, I will try to sift out any fatal flaws before attending the meeting.

150. Wichita Falls District - Our district has put in a plan, in the project development process we begin to identify all the issues including the environmental issues early in the process.

**Comments on Question 39 – Please share a specific streamlining problem**

151. Austin District - This may not be a streamlining problem, but this illustrates the disparity between public and private conformity with resource agency regulations. We began working with the USACE on preserving a wetland located partially within the proposed ROW for a project. During the project development phase, a field visit revealed that the wetland had been totally filled by a local developer in order to build a subdivision.

152. Tyler District - TNRCC 401 Tier I and II. This was supposed to make things streamlined. Before Tier I and II, TNRCC did not really get involved with a project unless it was an IP from the USACE, which much is basically the same. Now however, in order to get 401 certification, you have to complete a 401 questionnaire, a 401 alternatives analysis, which is different than the alternatives analysis that was prepared for the 404 permit, and then submit SW3P and erosion control layouts with permanent erosion controls denoted. Much more is required now than ever before Tier I and II.

153. Tyler - USACE/TNRCC individual permit and 401 Water Quality certification. You end up with repetitive information being given to both agencies.

154. Corpus Christi - The reverse of the above is when there is not enough time to do a thorough examination, the right people aren't included in a timely manner, others are unwilling to provide communication and guidance, or cooperation is poor or nonexistent. Together or alone these can thwart any process.

155. Austin District - USFW involvement in any project thought to be near any type of threatened or endangered species habitat. Coordination requirements change as the project evolves from concept to final design — seemingly on a whim.

156. Dallas District - All resource agencies must be supportive of the streamlining process. For example, on the LP 12/IH 35E project, we had a PCWG (Project coordination work group) but not all resource agencies were able to attend due to staffing and conflicts.

157. Corpus Christi - We have a bridge replacement project on SH35 that requires EFH, COE, TPWD & USFWL coordination. TPWD & USFWL coordination cannot be initiated until the EFH issue is resolved (as per ENV).

158. Lufkin - The only streamlining problem I know of is with all of the resource agencies that don't want to change the way they have been working. (In other words, streamlining is not an issue but a means to make the process of dealing with the issues more efficient.)

159. Houston – Letting date changes and how they affect our priorities.

160. Yoakum District - I don't know that streamlining and agency bureaucracy can be mentioned together. Agencies are structured to identify every potential or probable concern, thereby micromanaging every situation, and that in itself defies the spirit of streamlining.

161. Wichita Falls District - Overall communication between the division and district seem slow. ENV does not always respond in a timely manner. Comments on ENV documents are sometimes vague.

**Comments on Streamlining Survey**

162. I really don't see this as being effective given the missions of the various resource agencies. What is in it for them?

163. The best way to 'streamline' the process is early involvement of several kinds. Developing a trust between resource agencies and us is one kind. Communicating early and often with resource agencies, the public, ENV, and FHWA are most of the others.

164. I truly hope this survey is used appropriately. If you can 'streamline' the process without compromising the resources or the public's demonstrated desire to protect resources, you will have done a good thing.

165. I sincerely hope that your concept of streamlining is broad enough to consider the elimination of burdensome, unnecessary coordination and costly mitigation — not just introducing additional steps or administrative paperwork that might be completed faster.

166. Streamlining is basically a great idea; however, it should not be done on all projects. It should be project specific. It's all about getting a good purpose and need for the project, identifying potential significant socio-economic and environmental effects and then addressing those issues at the early stages of project development with all the affected stakeholders.

167. As mentioned previously, my biggest obstacle is dealing with mitigation issues. For example, explaining why mitigation is not proposed or why certain species were selected including amount of mitigation. It seems that some resource agency reviewers can never be pleased with what is proposed!

168. Need to focus on the resource agencies and streamlining TxDOT's internal coordination. The districts, as a whole, have more combined experience than the ENV Division (because of the mass turnover in Austin). Districts should have more power to make decisions on projects.

169. Goal setting and objectives should be shared between agencies early in the planning process. A lot of time goes into reevaluations of CEs that could have been let but were put on the "back burner" instead of following through with the original schedule.

170. The questions on the survey seem to be directing the desired response. Don't ask more than one question and then state in a report that the one answer given fits all of the questions asked.

171. Streamlining with the other agencies cannot be done. As long as the agencies are separate each will look out for their own interest. If all environmental agencies within Texas were to be combined under one director then streamlining could be done at least on the state level.

**Additional comments**

172. It turns out that I can't return this survey on the Internet myself because I don't have permission, so someone else has to do it for me!

173. Streamlining should be used, but the EA should not be reviewed concurrently with ENV/FHWA/Resource Agencies because concurrent review does not speed up the process substantially. Once we have addressed the issues with the public, resource agencies, etc., the EA should be submitted to ENV, then to Resource Agencies, then to FHWA, then to PH, then to FONSI, etc. for better quality control.

174. More effort should be made to do a project one time instead of revisiting it, often several times, and concentrate on streamlining projects through the system.

175. Agency coordination is now and always will be mandatory in most cases. However, reducing the extent of this coordination is the only way to achieve reasonable streamlining.

176. Before we talk about streamlining with other agencies, we need to streamline our process within the department. A group of both district ECs and division personnel needs to look at ways to make the process better. At the Streamlining workshop we heard from people outside the department. I want to hear how someone streamlined the process at district level.

# APPENDIX B–TPD SURVEY RESPONSE

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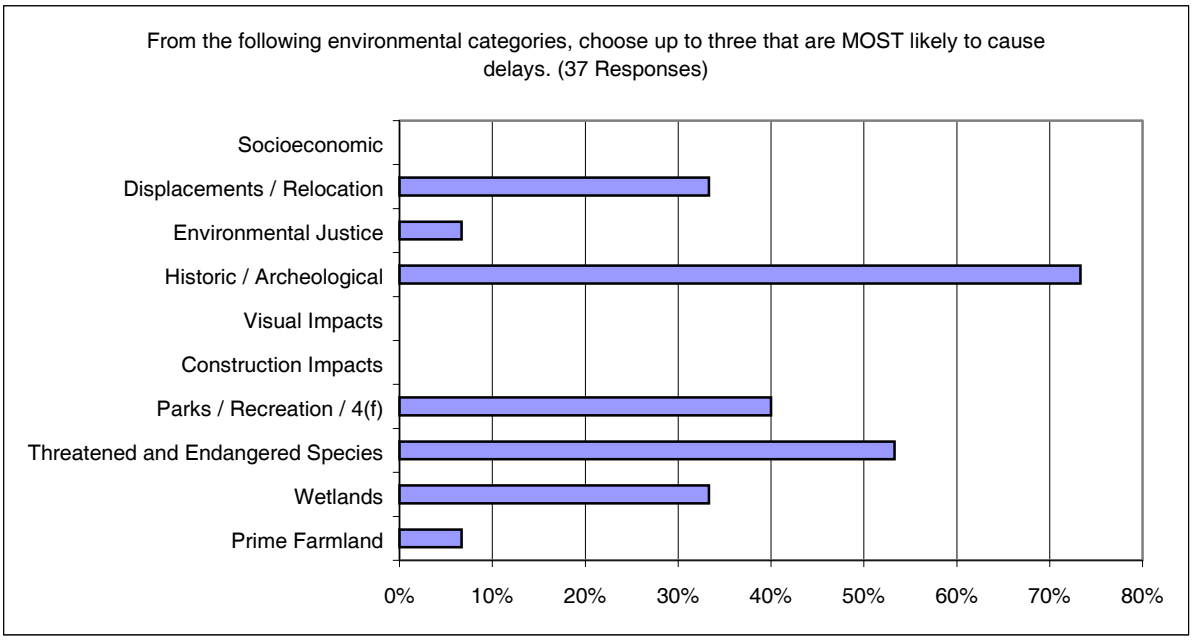
## Survey of TPDs

Based on the survey of environmental coordinators, the sponsor requested an additional survey of district transportation planning directors or equivalent position. The number of survey questions was reduced, but it was conducted using the same methodology as the survey of environmental coordinators. Thirteen of 25 districts responded. As with the first opinion survey, some of the questions allowed the respondent to choose three answers. Therefore, some of the questions received more than 25 responses. Researchers assigned consecutive numbers to response comments for easy reference and to maintain anonymity.

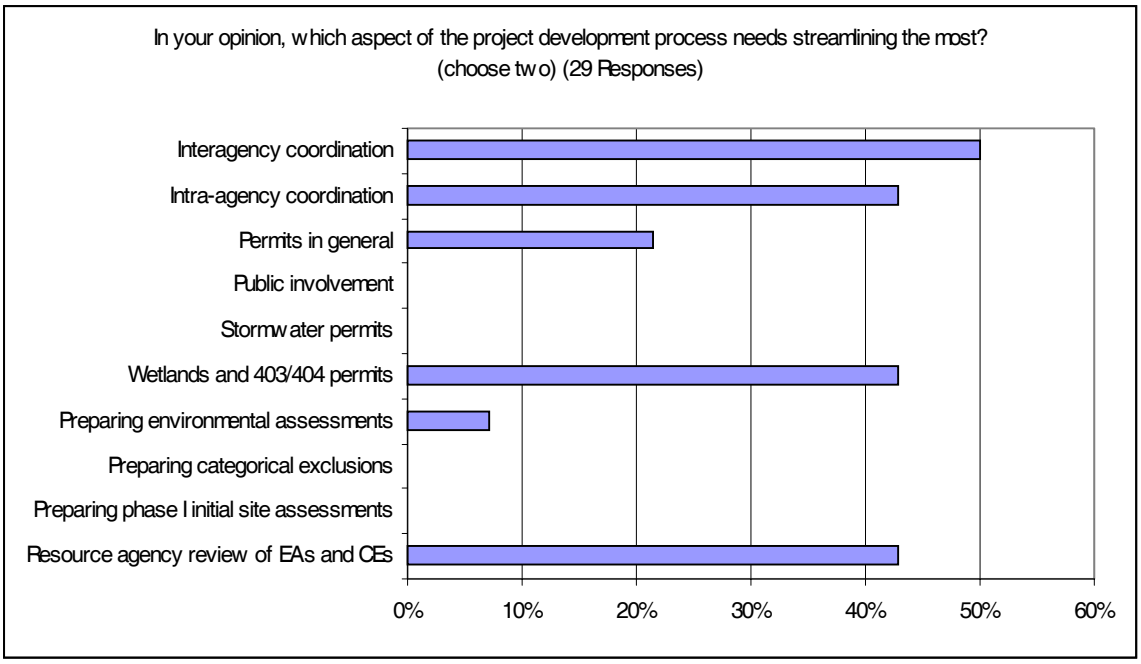
## Question 1




### Comments on Question 1

1. Delays are typically attributed to review/concurrence turnaround time required of resource agencies (i.e. USFWS, THC, etc.)
2. There are more than 3
3. Threatened and endangered species is a major cause of delay in the Austin District.
4. We do not have memorandums of agreement or understanding with US Fish and Wildlife Service governing our coordination of endangered species mitigation and they are very liberal in their interpretation of the time requirements found in the federal rules covering consultation. This combined with their staffing shortages can delay a project for years.
5. We try to avoid parks because it would add at least 1-2 years to the project. Also, if we have displacements and lack of public support, the project clearance would take a long time.
6. Wetlands are our biggest road-block in the Houston District.
7. Wetlands/waters of US are by far the cause of most delays in our district.

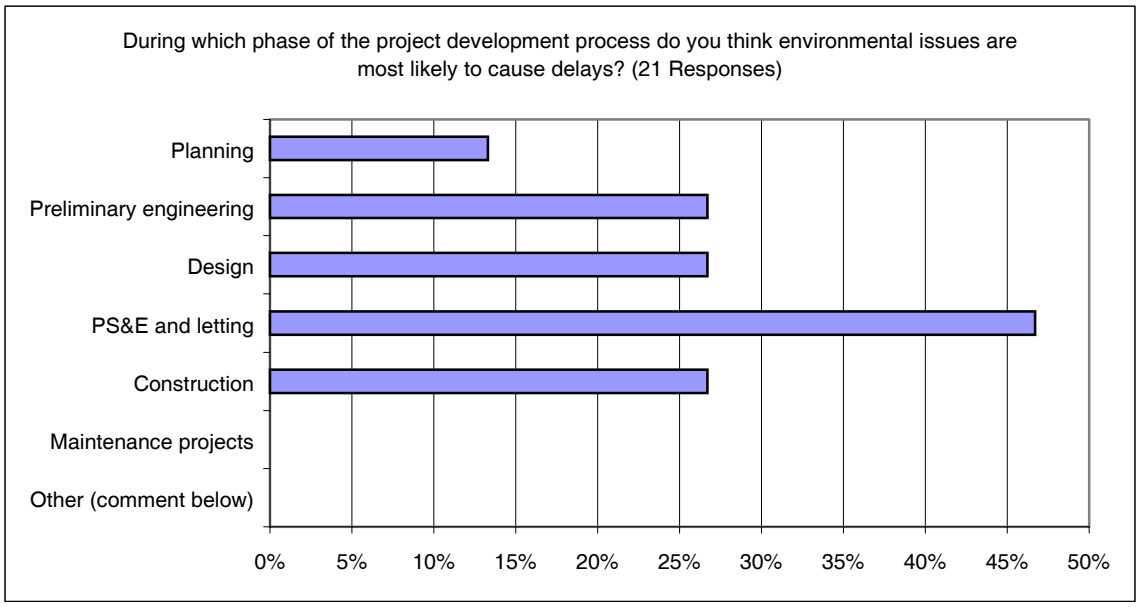
## Question 2




### Comments on Question 2

8. All of it.
9. If I could check interagency twice I would.
10. Interagency communication improvements are needed.
11. It takes too long for agencies to review and approve projects and to resolve major issues. We all need to do what's best for the traveling public and not be overly concerned with our agency agenda or territories. Everyone must work to achieve a win-win situation for all.
12. Resource agencies are routinely unresponsive to our needs to advance projects. Their agency interests are quite the opposite of TxDOT's mission.
13. There are more than 2.

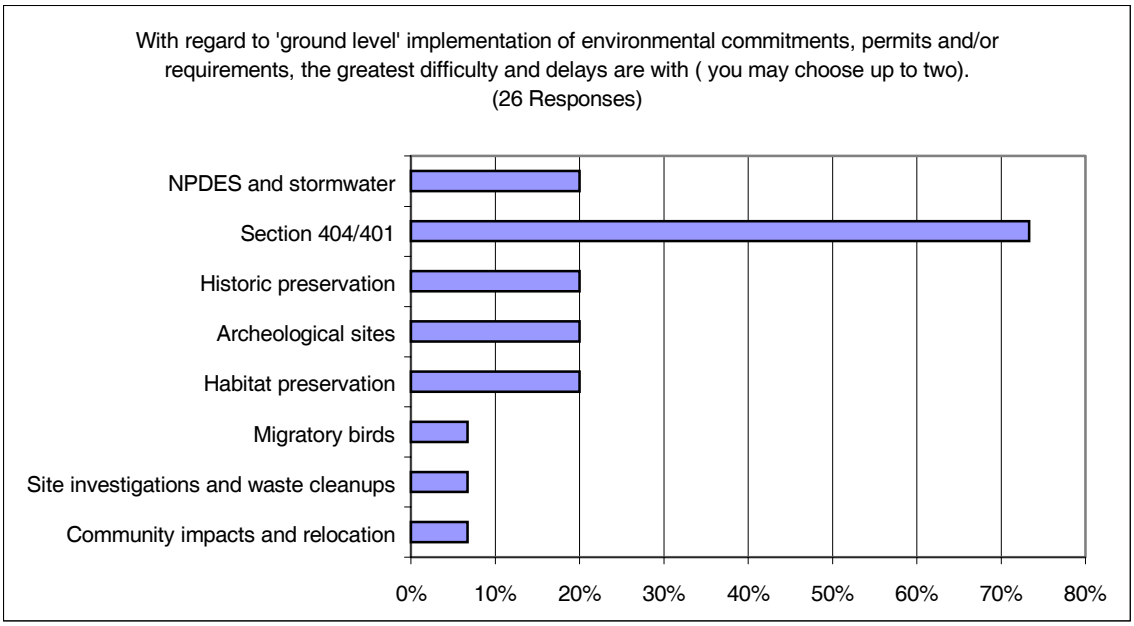
## Question 3




### Comments on Question 3

14. I cannot recall a project in our district being delayed by an environmental issue after preliminary development.
15. Obtaining environmental clearance is, obviously, the primary roadblock to project advancement.
16. Receiving approval to move forward with public hearings, and ROW acquisition or mitigation efforts is so time consuming and often difficult to predict that it keeps us from moving ahead fluidly into final plan preparation and project letting.
17. The contractor would be held up until the environmental issues are resolved and thus contractor claims would be higher.
18. With the detail that is required, permitting issues are causing numerous delays (letting).

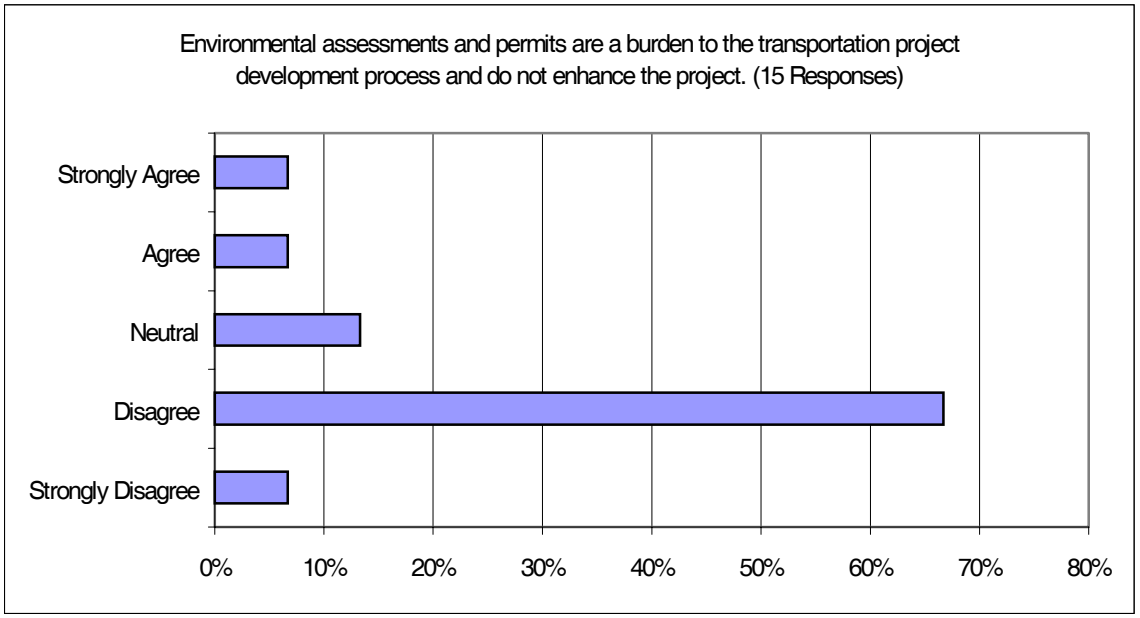
## Question 4.



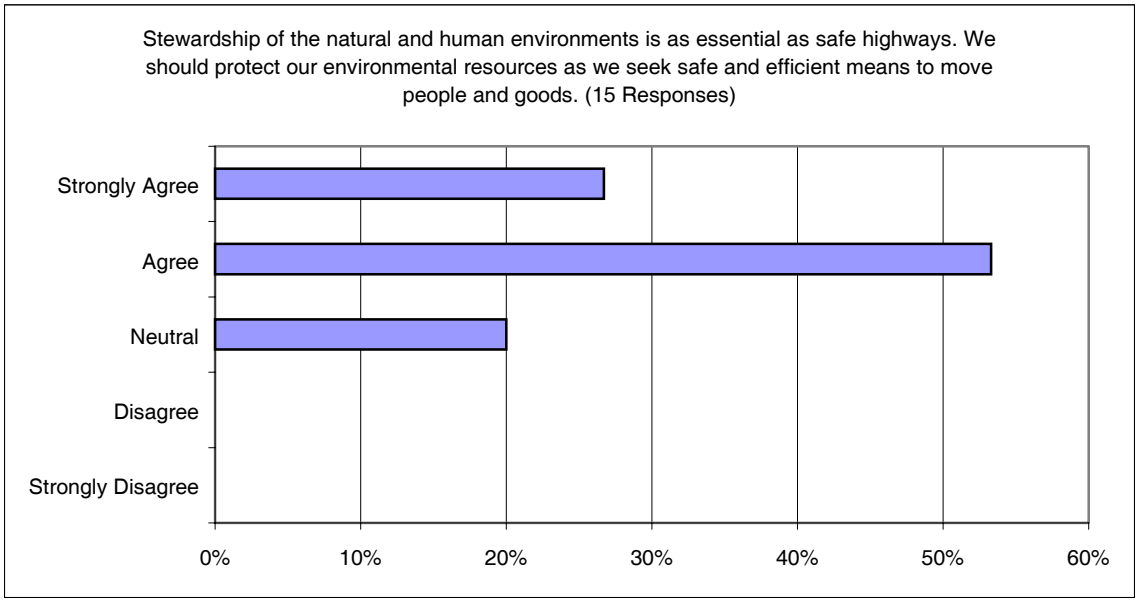

### Comments on Question 4

19. 404 Process has improved greatly. Sometimes there is a conflict in trying to preserve a historic bridge when that bridge needs to be replaced due to safety, structural deficiency, etc. Protecting the public should be a higher priority then protecting the bridge. However, there needs to be a balance and both can be achieved in the early stages of the process. Revising the design in the late stages and having to start over just adds more unnecessary delays. We all need to be held accountable.
20. Acceptable mitigation and ensuring success of sites is a challenging area.
21. Endangered species is not listed. That issue has and continues to cause considerable delays.

## Question 5



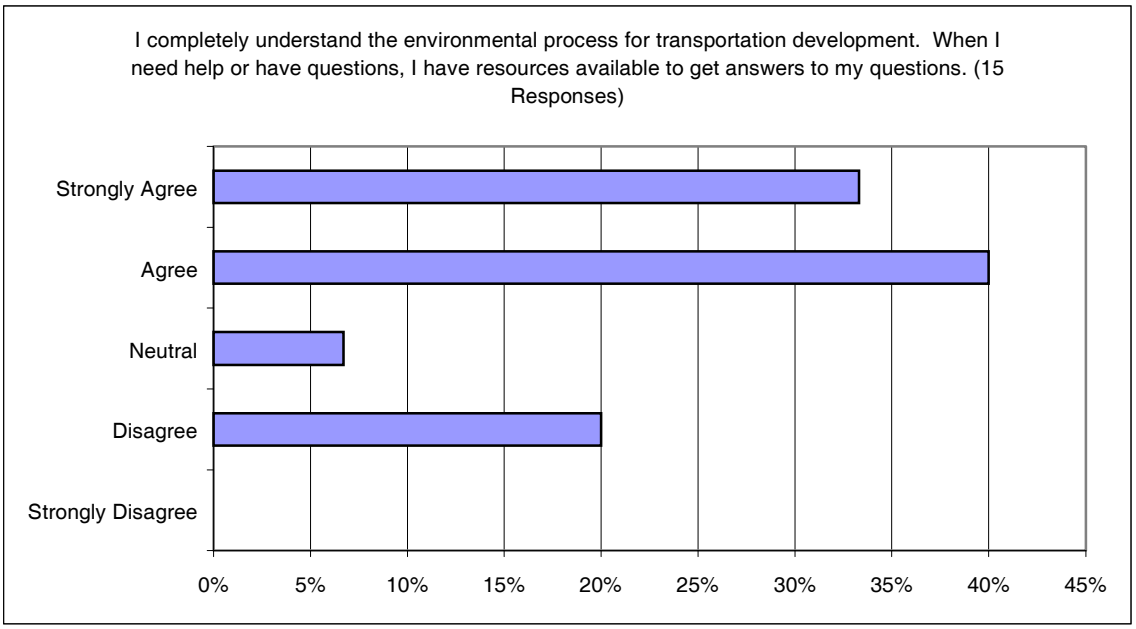

## Question 6



**Comments on Questions 5-6**

22. Evaluation of all the impacts of a project is a useful and necessary engineering tool for project development.
23. I agree that we need to protect the environment, but the environmental arena is quickly causing an unreasonable tilt in the balance between protecting the environment and safety!
24. I agree with this statement with the understanding that all analyses and decisions for mitigation are based on good science.
25. Our job at TxDOT is to provide a safe, cost efficient & user-friendly transportation system. Along the way, we need to protect our environment. We need a happy medium between the two.
26. Safety and environmental concerns have to go "hand-in-hand." The safety of others should be a priority with resource agencies as well.
27. Somewhere along the process to safeguard the environment, the ability to use common sense was replaced with the requirement to proceed through paperwork.
28. The intent of NEPA is to appropriately consider the potential physical, biological, economic, and social effects on the quality of the Human Environment. Thus, human environment should be more important than the natural environment.

## Question 7



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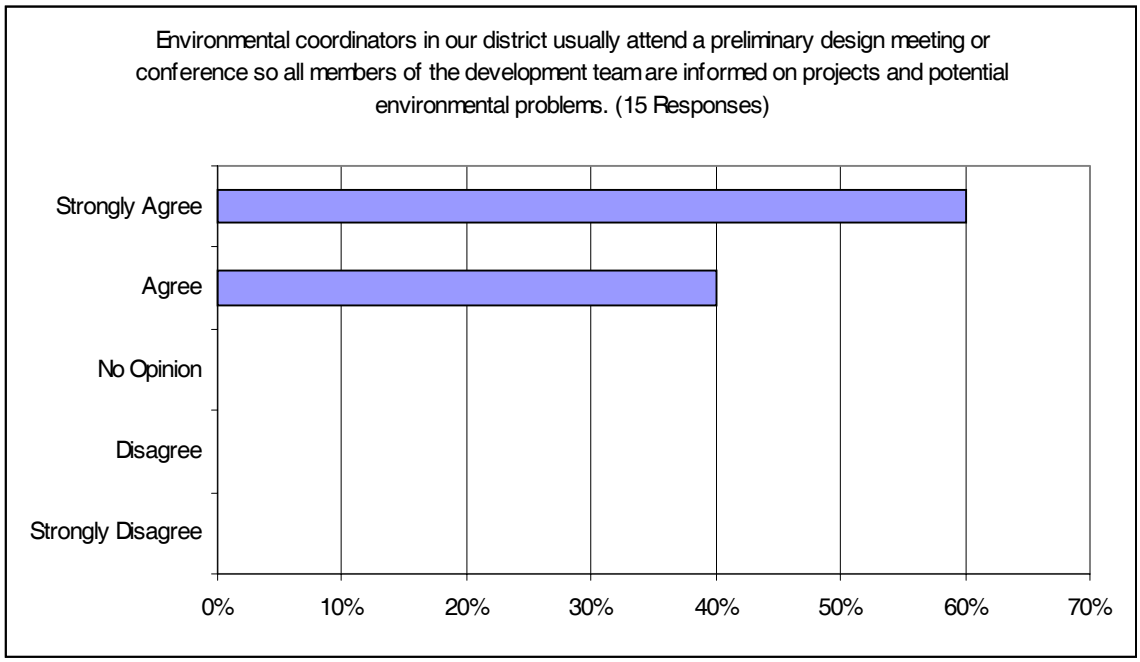
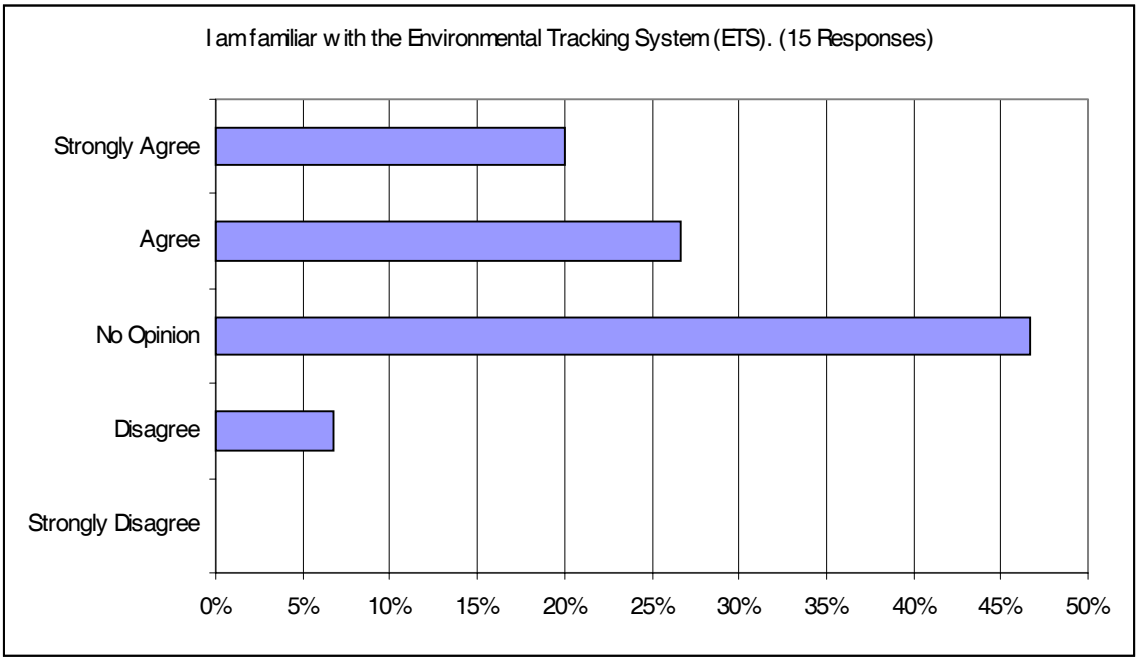
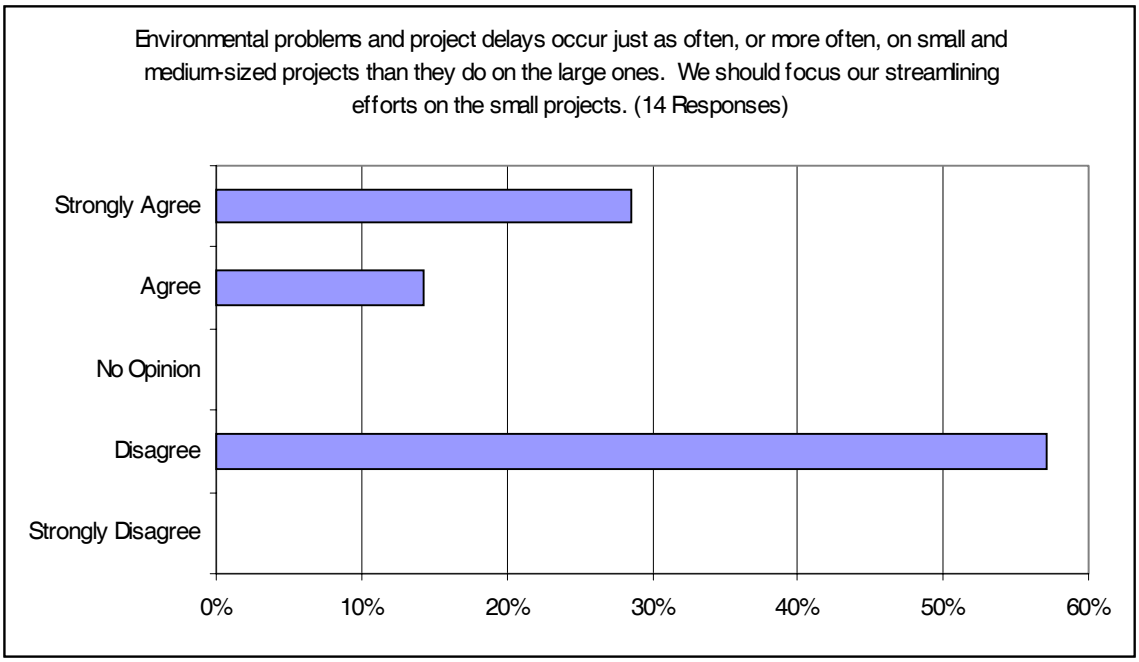


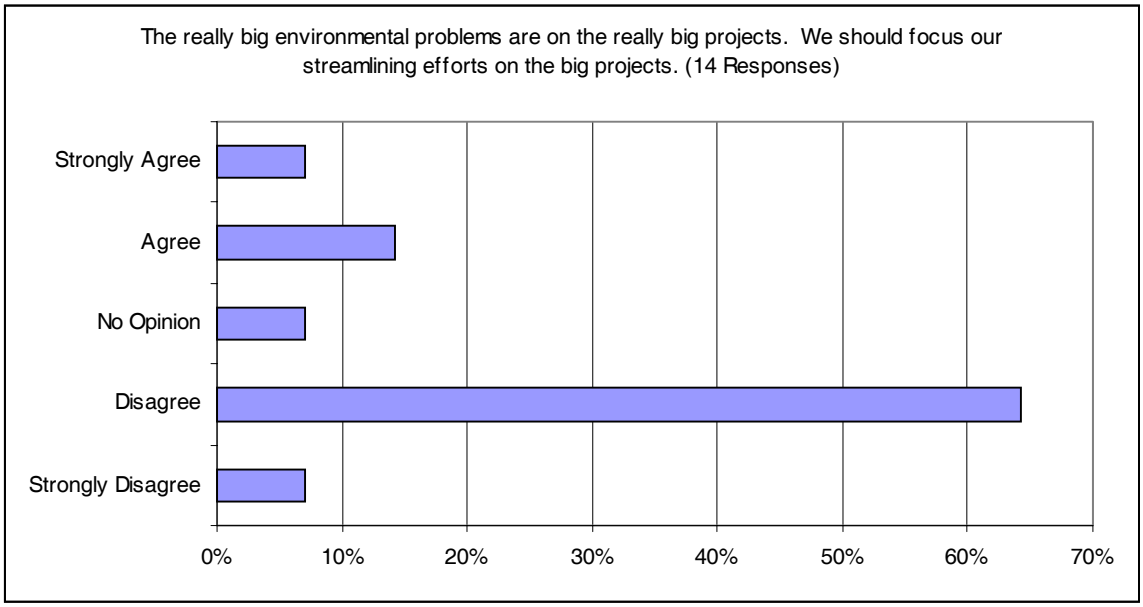

## Question 9



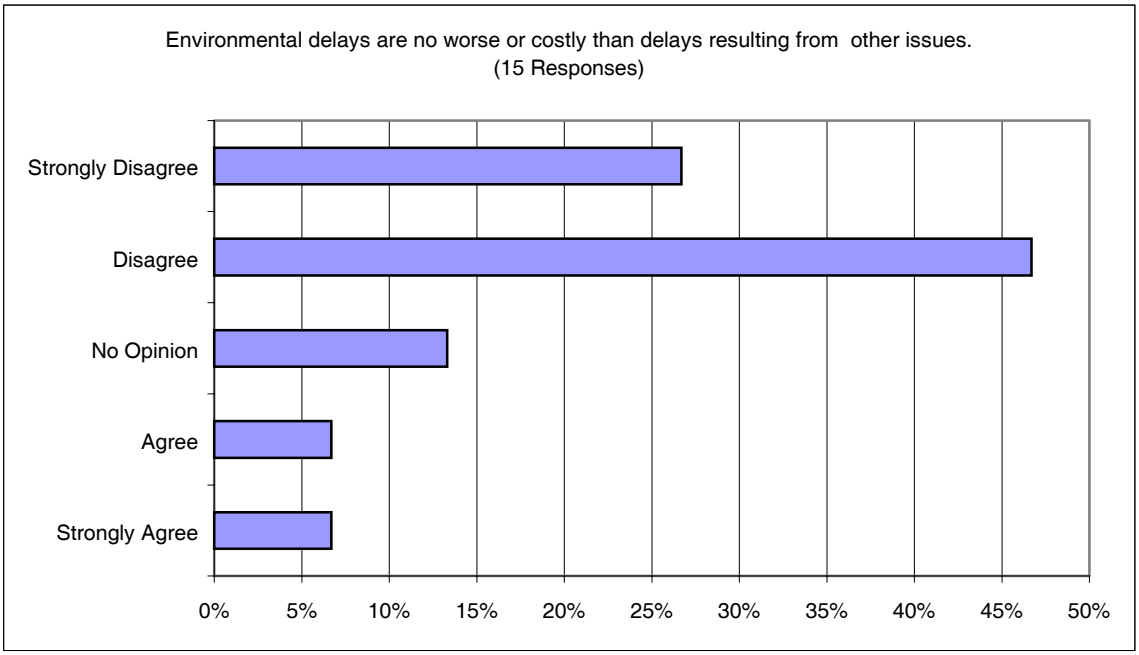
## Question 10.


Environmental problems and project delays occur just as often, or more often, on small and medium-sized projects than they do on the large ones. We should focus our streamlining efforts on the small projects. (14 Responses)
Strongly Agree
Agree
No Opinion
Disagree
Strongly Disagree
0%
10%
20%
30%
40%
50%
60%

## Question 11



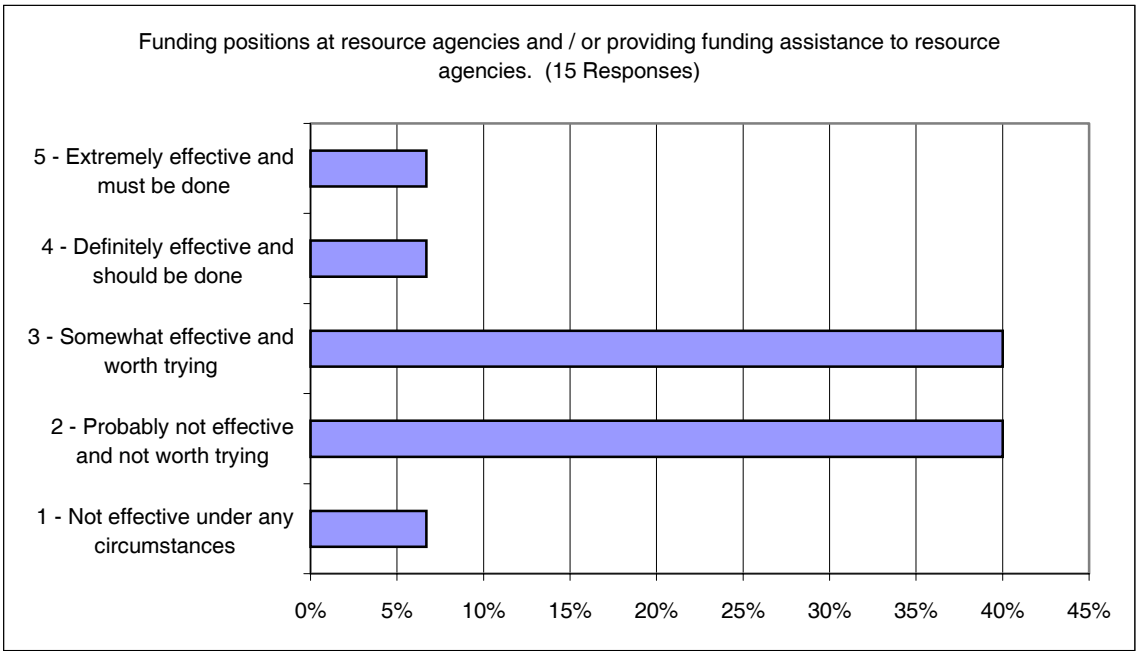

## Question 12



**Comments on Questions 7-12**

29. What is a small/medium project? Dollar volume? Scope? 11. Same questions as #10.
30. Environmental delays for the most part are the most costly delays that you can experience on projects. Utilities or Right-of-way issues can be worked out and typically the contractor has other places to work.
31. Environmental delays today occur on small and large projects irregardless of the risk! TxDOT/FHWA need to consider risk in the overall environmental picture.
32. Environmental problems occur on all projects, regardless of size, and we must focus our streamlining efforts on the process, not project size. CE, EA, or EIS is not the issue from my perspective. It is communication, understanding, and commitment to mutually assist the development of a project while protecting the environment.
33. I feel that streamlining the larger projects up front will yield added benefits to all project coordination due to improved interagency communications.
34. Our biggest issues are with undisturbed property and new ROW. The agendas of the resource agencies often cause delays. Question 12 is difficult to understand.
35. Projects, large or small, face most of the same problems. There is nothing to gain by pledging to focus on problems facing a certain size project.
36. Streamlining should be done on major projects with significant (depending on the context and intensity) social, economic, and environmental issues such as for our FONSIs or EISs. Streamlining should rarely be done on smaller projects such as CEs unless there is a major issue that needs to be resolved. ENV and FHWA assistance has been great to our District. XXXX provides superb assistance along with outstanding help from XXXXX and XXXXX so that we can keep our project letting schedule.
37. We are experiencing increasing delays and mitigation costs on those projects involving US Fish & Wildlife Service.
38. We need to focus environmental streamlining on NEPA for all projects.

## Question 13

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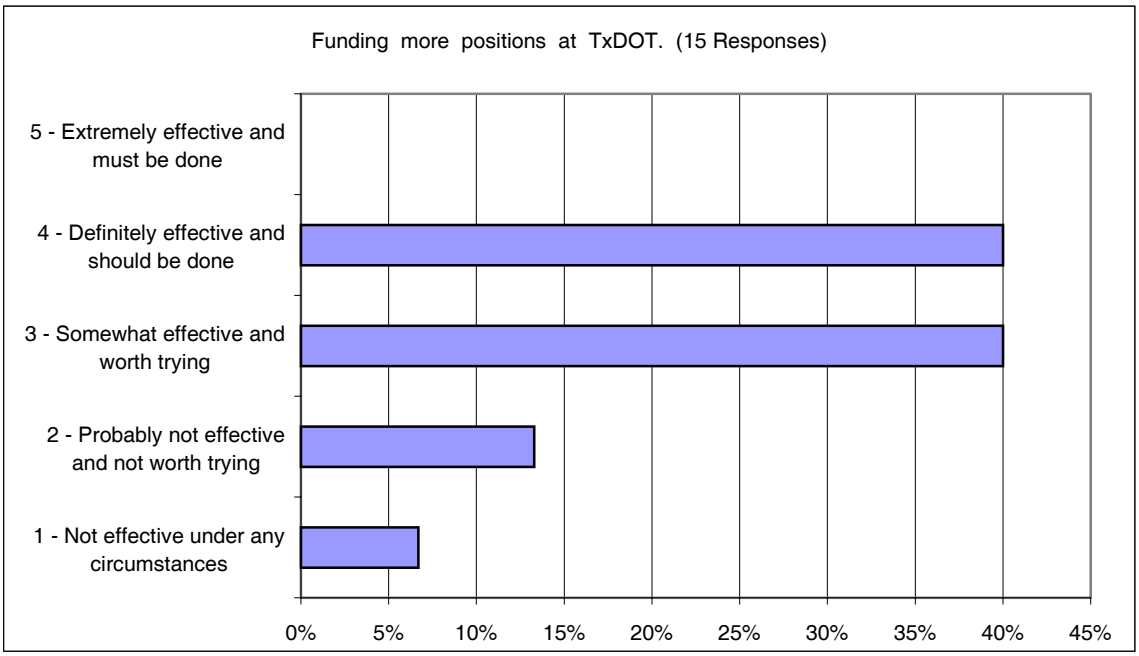
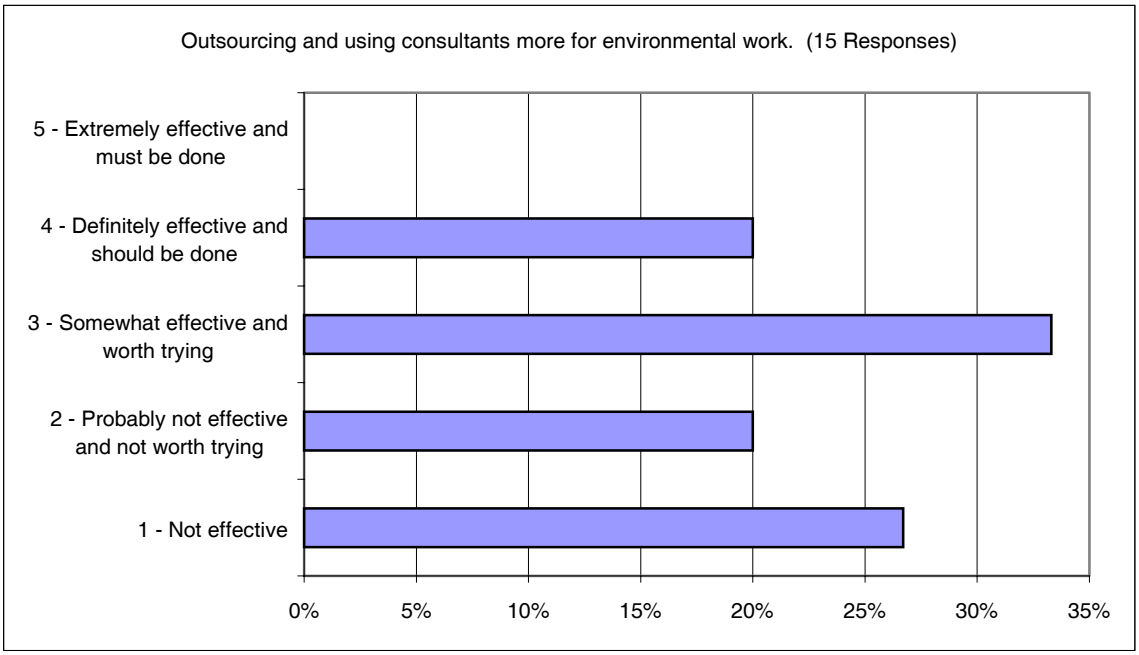


## Question 15

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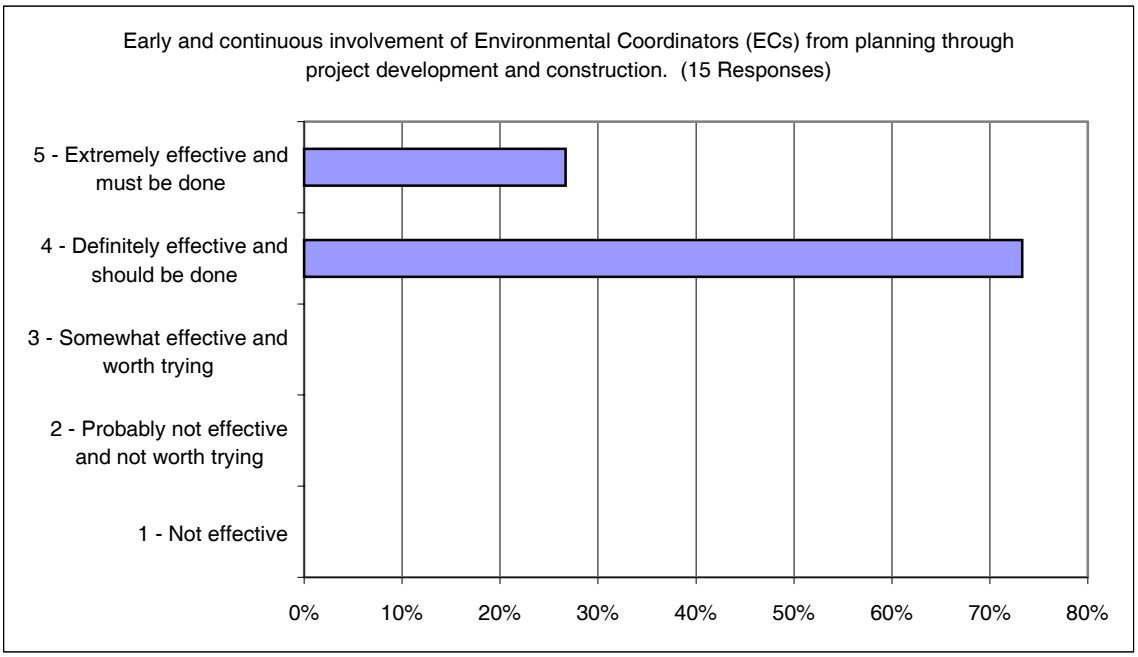

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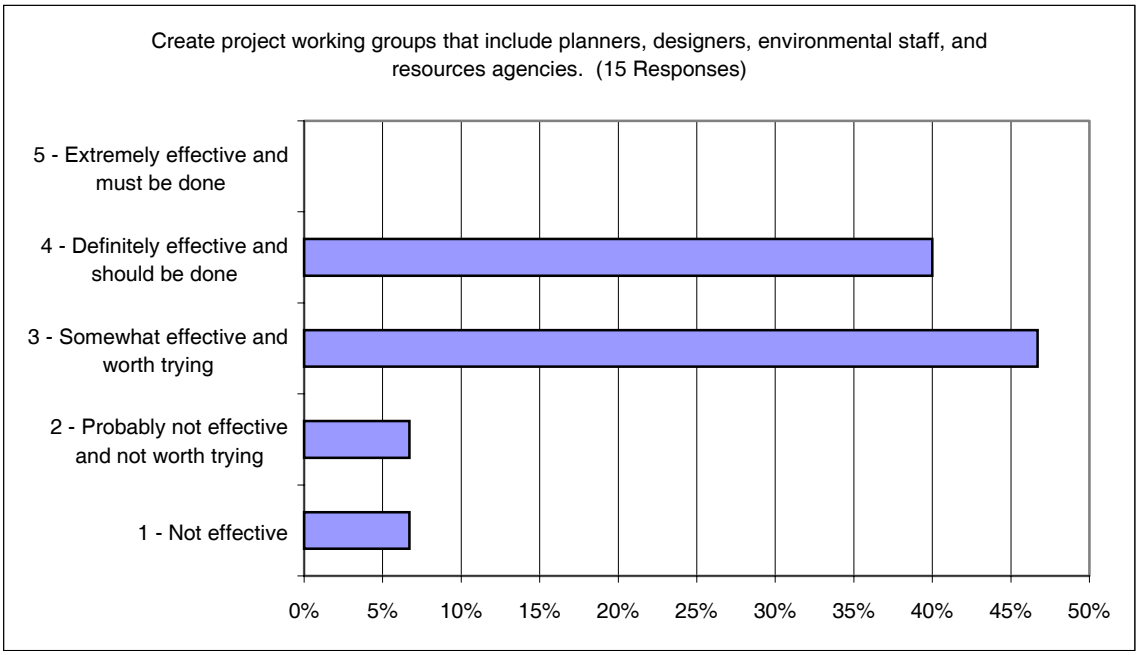


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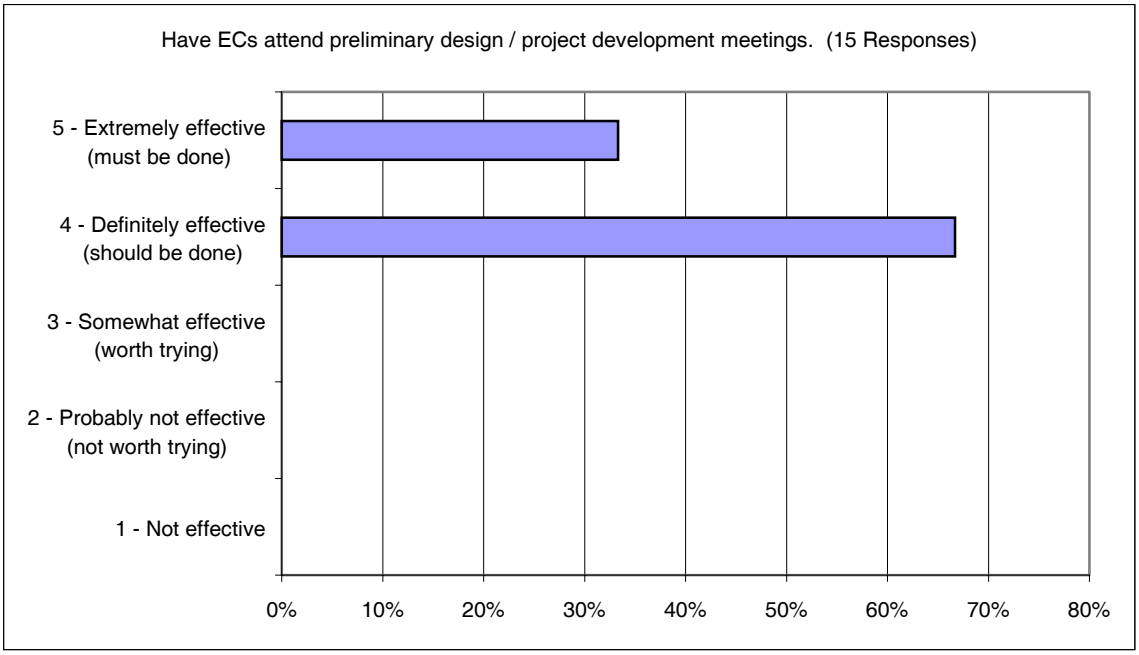
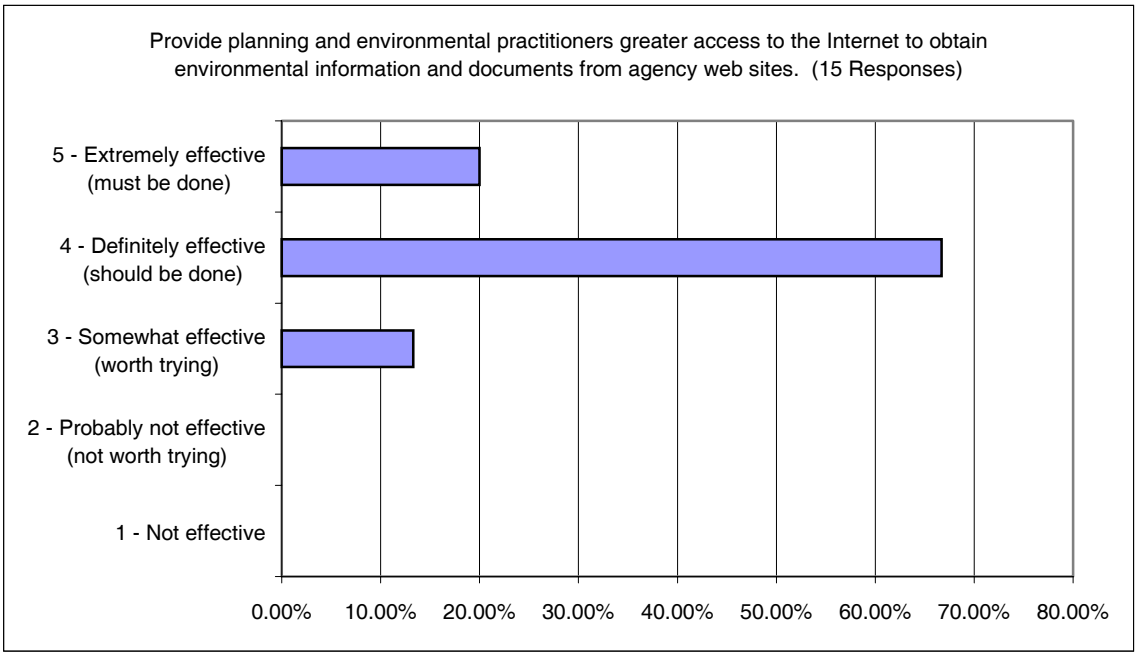
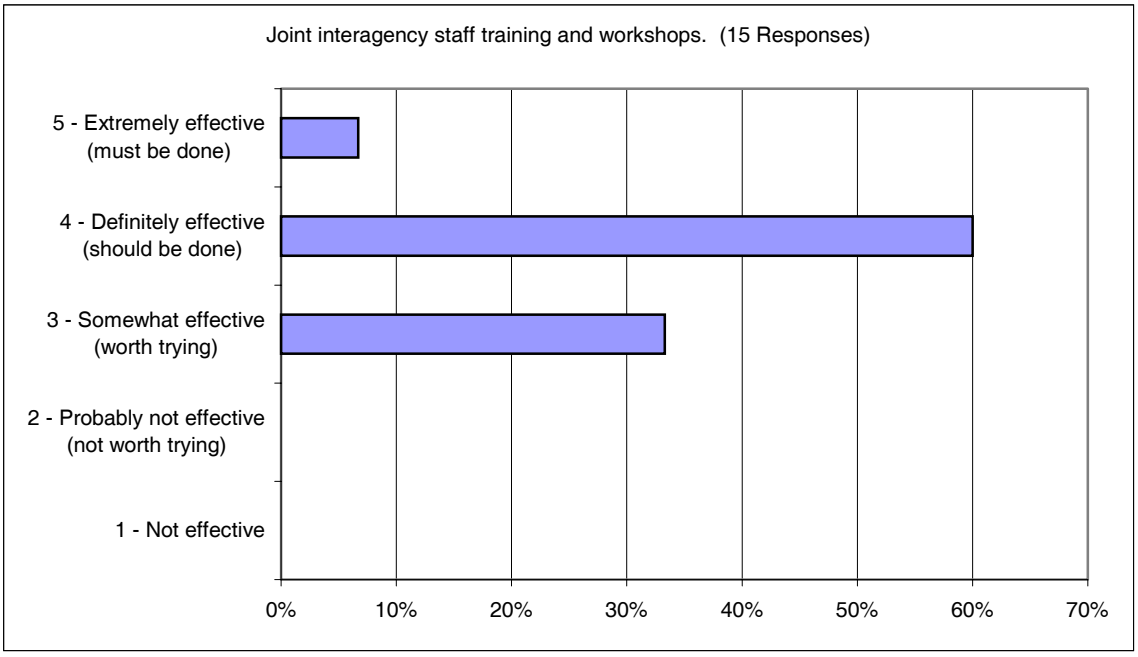


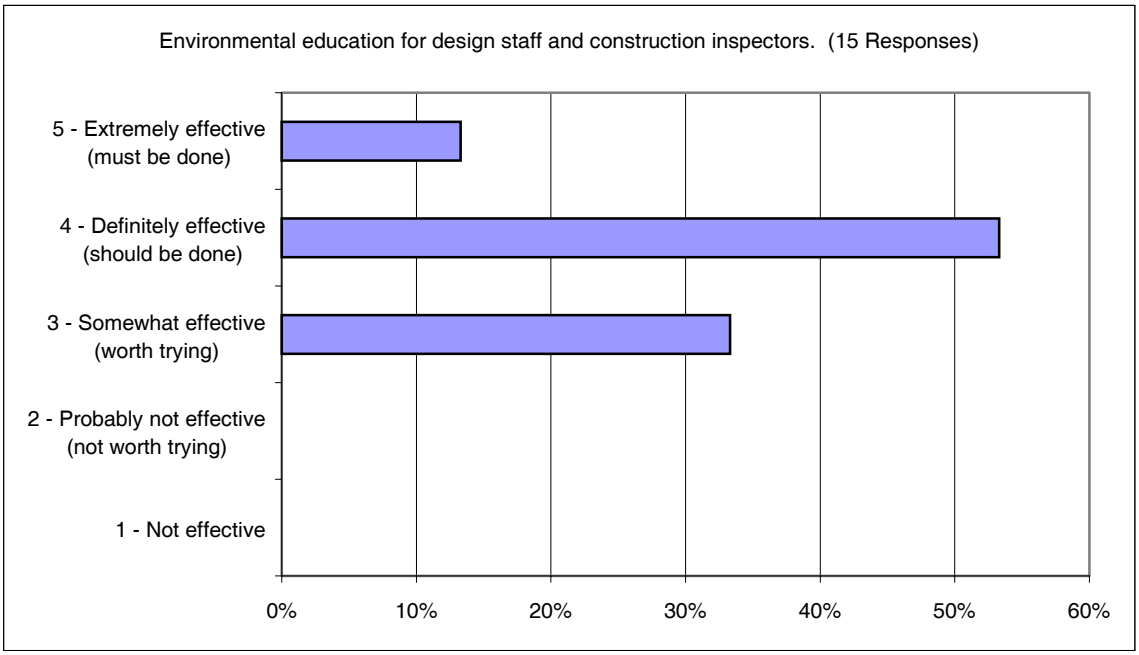
## Question 19



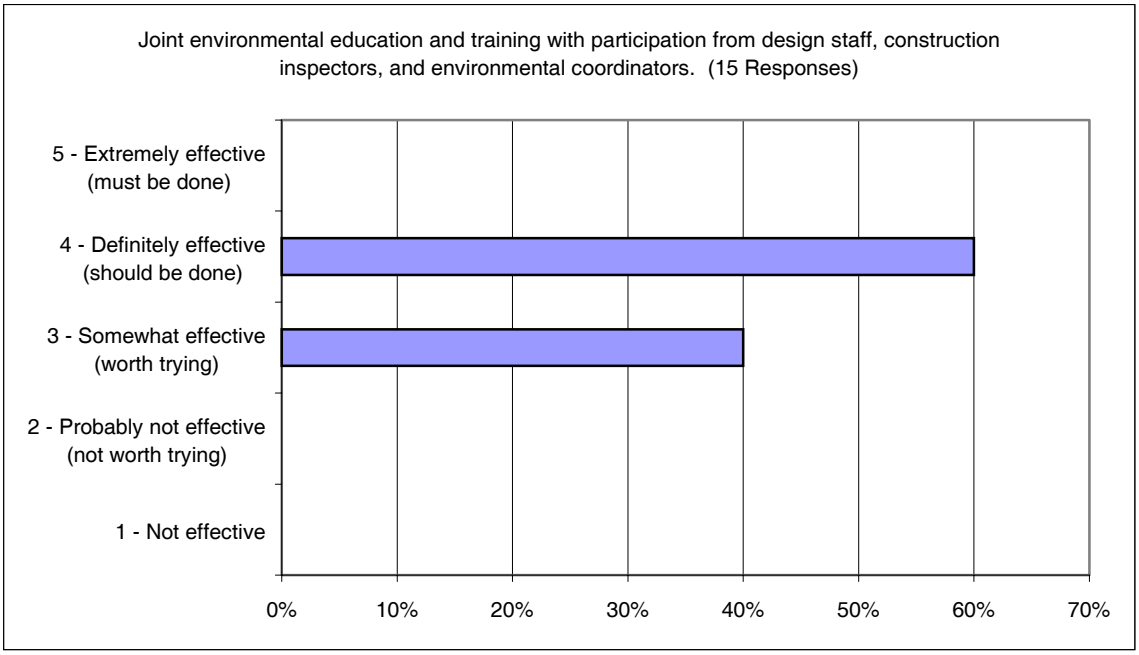

## Question 20



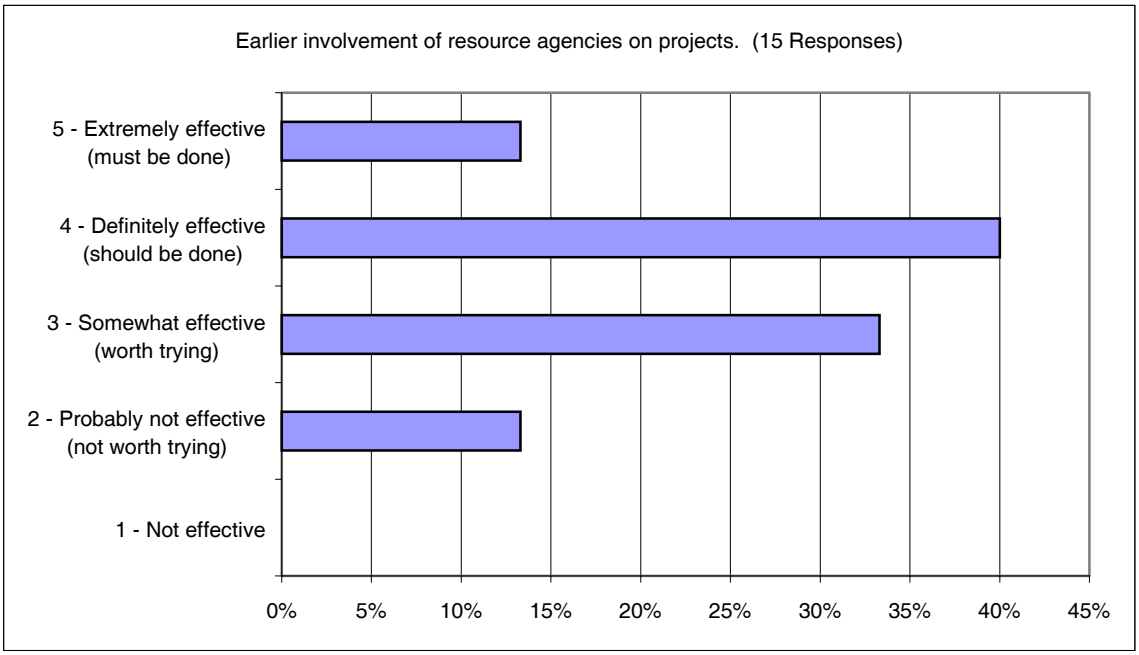
## Question 21



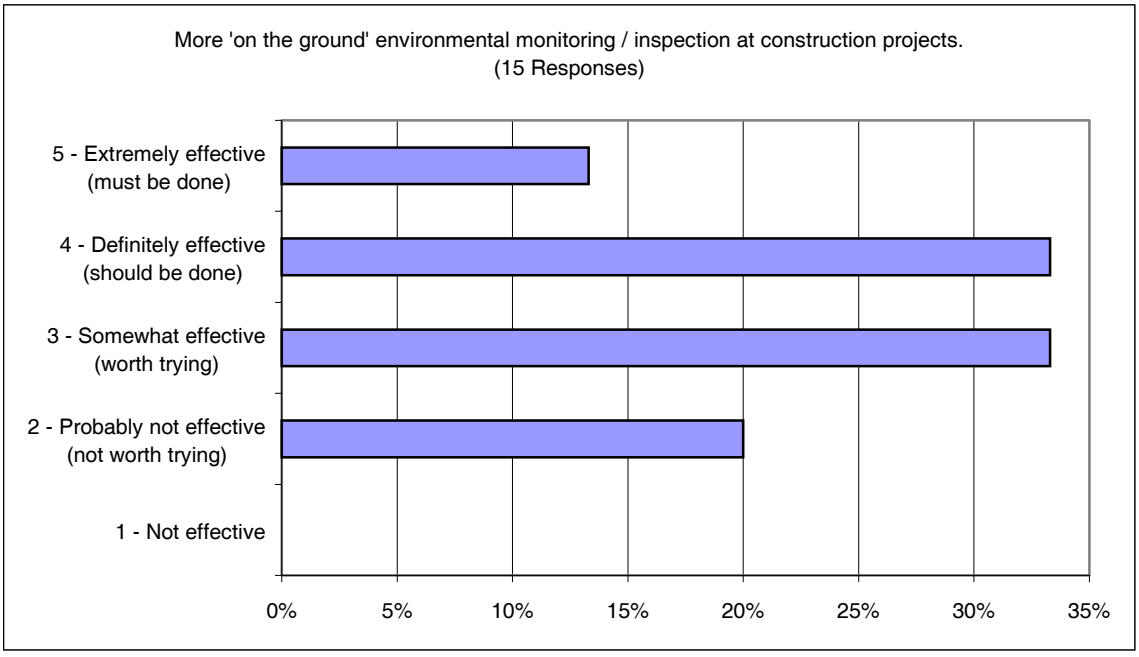

## Question 22



## Question 23




## Question 24



**Comments on Questions 13-23**

39. As long as the person solely works on TxDOT projects. 14. As long as the positions are in the district. ENV Division already has enough people available for making calendars, therefore they do not need any more. 18. We are assuming these people will be part of the group for the PDC. 25. It is a good idea, who provides the manpower?
40. All the above suggestions are great and should be implemented on a regular basis.
41. I want to comment on question 13 - I am not in favor of providing funding to any federal resource agency for any reason. I feel that this would be a bad business decision for TxDOT. In the event funding is provided to either a state or federal resource agency, TxDOT should insist that our auditors study and report on a yearly basis the "value added" to the department's letting program from this expense. In regard to question 24, our experience with early involvement with US Fish & Wildlife Service proved to be a complete failure. Staff from the Service did not honor many of their commitments and failed to follow the Endangered Species Act during Section 7 consultation.
42. The suggestions above have been tried and many are being implemented at the District level. We rarely get participation from resource agencies. It is apparent that resource agencies DO NOT understand transportation engineering. Many cannot read and interpret roadway plans. Linear projects (which is what we do) do not fit the environmental intent in many cases. This causes very costly and impractical mitigation for alleged impacts that may not be that critical in the big picture.
43. Two-way communication and transfer of information is an essential need.
44. We have tried to get the various resource agencies involved earlier in the project development. They show little interest to work with us and are very non-committal.
45. We try to send basic information to reviewers at ENV even before we send in the complete CE or EA. Also, when reviewing a consultant document, we like to forward our comments to ENV and then return both sets of comments to the consultant at once.

**Comments on Question 27 - Please provide any comments on streamlining, this survey, or any additional comments.**

46. I believe the largest problem with the environmental review, analysis, planning, and protection process is the diversity of directives involved in the process. Each agency, office, advocacy group, and stakeholder involved in the process has a different goal and objective when they come into the process. There is no unity of objective that is often provided in these type partnerships. I suggest that the regulations, rules, and laws governing this process be evaluated to determine if an umbrella agency or organization can be created to oversee this process. I am proposing a governing agency, at least in Texas, perhaps labeled as the Texas Environmental Coordination Agency, that is given oversight and management control over all environmental groups. The environmental staffs of each agency, the THC, SHPO, TPWD, TNRCC, USFW, COE, USFS, TXDOT, and all others would answer to this agency, not their own administration. Consequently, these agencies would be working in har! mo!

ny! with one directive, rather than in opposition to each other with differing goals. This is rather radical thinking, but the earth is not flat, and the future demands that we sail over the horizon to see what lies beyond if we ever want to discover the lands that lie beyond our current field of vision.

47. I think all resource and regulatory agencies should limit their review time to 30 days.
48. In concept, streamlining is a good idea; however, in practice, I do not think it will work unless the resource agencies are committed to base their decisions on good science, committed to act in good faith to streamline the process, and held accountable to do both the above.
49. Our District requires the Environmental Coordinator to attend all Preliminary Concepts Conferences or Design conferences, public meetings, public hearings, etc. I feel this is a critical step in avoiding delays.
50. Streamlining should be done on major projects only. The rest of the projects can follow standard procedure. Overall, the process is efficient and on some projects the earlier we start addressing the issues and the better our communication becomes with all the stakeholders, the more successful we will all become. Then, once the decisions are made and documented, we need to move forward with the project.
51. We deal with the Galveston District of the US Corp of Engineers. (USCOE). Their field reps have an arrogant attitude in some cases. One in particular has told us that when he has a responsibility with one of our projects, he is God! Pretty easy to figure out the meaning of that statement. I believe that for the most part we are one of the more cooperative agencies when it comes to environmental issues. The USCOE treats us a little respect and a whole lot of disdain. I don't see much relief until Congress conducts a full investigation of their operations. Their nonsense is costing this great country $Billions. I am all for protecting our environment, but some of their policies and rulings border on ridiculous.
52. We, at the local level, need to decide what needs to be done during the environmental process. Instead, we treat all projects the same. This is an extreme waste of time and other resources. We live here. We are going to do what is right by the environment. If we encounter something on a project that requires specialized help, we will get it. It is kind of humorous to me that we need to cut down trees, to make paper, to continually restate the same things, on our routine projects. If you really want to streamline the process, eliminate all of the layers of review; standardize the routine projects/issues and let my environmental coordinator get out into the field where he belongs. He spends too much time writing and reviewing documents. He needs to be able to visit projects during more than the design phase of project development. And, hiring additional people to write/review repetitive documents is not the answer.