

Raleigh Review of Draft Framework Workshop for Environmental Management Plan

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FROM: CH2M HILL

DATE: December 2, 9:00 AM

Raleigh employees met on December 2nd in the North Carolina Department of Transportation (DOT) Board Room to review and discuss the Environmental Management Plan (EMP). The objectives of the meeting were to present the draft framework, obtain feedback from staff, and identify the environmental activities already being performed. The draft EMP framework was reviewed with the entire group and then the attendees split into small groups to discuss each draft framework objective in detail. This memorandum summarizes the group discussions.

Introductions and Meeting Objectives

Ehren Meister opened the meeting, introduced the CH2M HILL team, and provided a general summary of the meeting's objectives. J.D. Solomon with CH2M HILL introduced the CH2M HILL staff members and asked the DOT participants to introduce themselves. J.D. presented the goals for the Environmental Management Plan, noted that the purpose of the meeting is to obtain feedback from staff, and described how staff input will be used to develop the final EMP.

Project Background

J.D. identified the EMP sponsors and the core team at DOT that helped to develop the draft EMP framework. The draft framework is based upon existing DOT documents and additional information from benchmarked agencies that have excellent environmental management systems or programs. A few of the DOT documents were identified and a copy of the Environmental Stewardship Policy was distributed to the meeting attendees.

The benchmarking agencies included other State Departments of Transportation, cities, and military facilities.

Mr. Solomon reviewed the main goals for the EMP:

- The EMP should be clear, concise, workable, realistic, and achievable for all levels of the organization.
- The EMP will provide a way to clearly document the cost effectiveness of investments made on environmental initiatives.
- The EMP will incorporate previous environmental initiatives where applicable.
- The EMP will include methods for communicating environmental performance measures to all levels so that employees recognize and understand what the Department is doing.
- Obtain broad acceptance of the EMP from the Board, employees, and the public.

The draft EMP framework was reviewed. The meeting participants were asked to think about the questions that they will be asked to answer in the small group sessions:

- What are you already doing that supports the draft EMP Framework?
- What are you doing that is missing from the draft EMP framework?
- What draft EMP objectives are not applicable to you?

After the objectives were presented J.D., asked the group to identify anything missing and to share their initial thoughts about the draft framework. The group's initial comments included: The DOT's clients are the public and consideration of the human environment is missing from the framework. It needs to be a main objective of the EMP. Include wildlife and plant habitat focus in land resource management. Consider being proactive and going beyond the minimum requirements. Once a permit is finalized it is difficult to make proactive changes or improvements without causing significant project delays. Unlike DOT, DENR does not have to meet project delivery goals.

Break

Small Group Sessions

After the break the meeting attendees were split into two groups. Each group reviewed the individual draft framework pieces and identified the activities they are doing under each section and any activities that don't fit under the draft framework pieces. The small group discussions were led by CH2M HILL staff. Group comments were recorded on flip charts. After each draft framework piece was reviewed, the groups came back together and CH2M HILL presented the highlights of the small group discussions.

Objective A - Ensure employee compliance with the Environmental Stewardship Policy

- 1) Achieve zero notice of violations (NOV) on projects, facilities, and operations
- 2) Conduct root cause analysis and develop recovery plans for correction of NOV occurrences
- 3) Build upon and enhance internal programs which demonstrate NCDOT's commitment to the natural and human environment

Current Activities:

- Adding staff to PDEA – Human Environment
- PEDDA developed goal to obtain permits 9 months prior to let date
- Applying for permit application earlier
- Conducting BMP and facility management training
- Onsite mitigation – roadside and hydraulics
- Replacing leaking fuel tanks

Comments/Suggestions:

- Zero NOV's isn't possible
- Measure ICA's
- Business plan already measures compliance with the environmental stewardship plan
- 3rd bullet isn't measurable – too abstract – not concrete or measurable
- Regulatory interpretation is different within DOT and between regulatory agencies, even within the same organization
- Need more information on integrating all applicable regulations. Establish one place to go to get all the information.
- ID regulations (all) – work off/from same version and definition of rules
- Better project design is needed to avoid NOV
- Need more focus on pre-construction – needs emphasis, especially in B
- Green sheet – PDEA requirements, want to know “why”?
- Designers need more regulatory training and pre-construction design education
- All DOT staff need to be on the same page – field crews and designers/office
- There often is a disconnect between field staff and office personnel
- Planning/Design/Construction – all involved from cradle – to – grave
- Use a Project Manager to facilitate communication between groups and assist with integrating all aspects of the project and provide education
- Bridge maintenance utilizes a project manager
- Identify contacts within DOT that can provide information on regulations and DOT policies and review or approve internal projects
- High turnover = inexperience. Need a central location where an employees can go for information to prevent learning as you make mistakes
- Names or contact people change and there is no notification
- Need to include focus on public needs/wants/protection

- Public Involvement – people are part of the environment
- Identify public expectations/needs
- Human environment is as important as the other environmental components
- How do we assess the “weight” given to public opinion?
- Talk with Carl for input on phrasing the overall human environment objective
- Projects turned into resource agencies for NOV’s before the units are alerted
- Need to develop procedure to establish internal communications before turning a project in to resource agencies for an NOV
- Develop contact procedure between design and field personnel to improve interaction
- Concerns regarding budget restraints – where will the General Assembly put funding?
- New environmental rules that impact resources and budget are approved by DOT Board
- Need to figure out how to get the most “Bang for the Buck” related to environmental issues
- How to fund new things that come out of this and consider the cost impact to TIP?
- How do we get the word out about environmental initiatives? Through training?
- Relating to bullet #3 – “tons” of things we do are not documented

Objective B - Ensure the compliance of NCDOT and industry partners with state and federal environmental laws, rules and regulations

- 1) Achieve zero NOV’s on projects
- 2) Achieve zero contract violations related to or as result of adverse environmental impacts
- 3) Conduct root cause analysis and develop recovery plans for correction of NOV or contract violation occurrences

Current Activities

- Mitigation efforts consider future maintenance issues
- Proactively purchase extra property and increase easement protection beyond project boundary to make DOT a “good neighbor”
- Include all media
- Lots of current activities also fit under other framework pieces
- PEDA has made efforts to have Division involved in permit process and construction inspection
- Green sheets document the environmental component of projects and become part of contract
- Green sheets document extra efforts related to the environment
- Discuss environmental project components at pre-construction conferences
- PEDA conducts field consultation if permit questions arise
- Conduct internal review of permit applications before submittal
- Roadside environmental oversees implementation of erosion and sediment control and natural channel design

Comments/Suggestions

- A and B similar
- If you comply w/"A", then get "B"
- Combine A and B by adding Contractor to A
- Bullet #1 is in DOT Business plan
- Add framework components that address project design
- Make this objective focus on individual and group responsibilities, not just the Department's
- This objective focuses on the department but should also focus on individuals
- Contractors should be included in the definition of "Employee"
- No efforts beyond compliance are identified
- Should identify what DOT will do above and beyond straight compliance
- The "Spirit" of projects or DOT's commitment should be to enhance beyond minimum requirements
- Go beyond minimum requirements but consider cost and timeline
- The bridge section depends entirely on the DEO to ensure compliance
- Need to have communication between design, permitting and operations staff during the field and pre-construction phases
- DEOs could delegate to NEU for oversight of certain projects (ex. natural channel design)
- Pre-qualify contractors in natural channel design and include this in the BID process
- ICA's are missing from targets or objectives

Objective C – Build upon and enhance environmental sustainability practices

- 1) Achieve government recycling mandates to reduce waste and reduce costs
- 2) Determine the technical feasibility and cost effectiveness of waste reduction measures
- 3) Evaluate and track additional reduction, recycling, and reuse efforts to continually improve environmental sustainability
- 4) Implement the Energy Policy

Current Activities

- Probably already doing most of these
- There is a group in project services that encourages the use of recycled materials
- Highway design encourages the use of recycled materials
- DOT is measuring or used to measure concrete and asphalt reuse
- 40 Counties are using bio-diesel; they are adding more counties all the time

- Retrofit existing highways with BMPs
- Maintain BMPs on NC highways under NPDES program

Comments/Suggestions

- Maintenance can't afford not to recycle
- Increase education, focus on impacts and the reasons behind rules or approaches
- Highlight or advertise successes
- Need to exceed not just meet mandates
- Continue to remind staff about recycling
- Need someone that focuses on environmental sustainability and helps with implementation
- Is it achievable and measurable?
- What is the baseline?
- Need to continually research how to reduce the waste stream – “dumpster diving”
- Investigate how to identify recycling opportunities for construction and maintenance
- We should look at alternative fuels
- There's a research budget available – use internal research budget to conduct cost-benefit analysis
- In using alternative fuels consider that the mileage per gallon decreases so should examine the net environmental benefit
- Establish a Department of Agriculture (DOA) and DOT partnership to research alternate fuels?

Objective D – Enhance air quality management

- 1) Identify and measure air quality impacts produced by NCDOT activities
- 2) Complete air quality analyses in non-attainment and maintenance areas on time
- 3) Maximize the use of available congestion mitigation and air quality improvement program (CMAQ) funds each year
- 4) Organize effective regional collaborations with metropolitan and rural planning organizations (MPO's and RPO's)

Current Activities

- DOT models the impact on air quality from projects included in the transportation plan to decide what projects should be done and when they should be implemented
- DENR funds positions to do monitoring
- Utilizing E85 fuels because they are 15% cleaner, but reduce MPG by 25%

Comments/Suggestions

- Air Quality is not really relevant to Maintenance

- Maintenance Equipment must meet standards
- Biodiesel use may or may not provide an air quality benefit
- Noise is missing
- Combine air/water/land into one Natural Resources objective
- Objective #1 should be deleted – almost impossible to determine.
- Can't measure overall impacts
- Measure air quality impacts from equipment and particulates on an individual project basis but there is no post-construction monitoring
- Use microscale analysis to determine carbon monoxide emissions at the project level
- Include DENR funded positions is cost-benefit, take credit for so thing DENR does since they are being funded through the DOT
- Include access management and emphasize congestion management
- Secondary development is not under DOT control

Objective E - Enhance water quality management

- 1) Continue to implement enhancements and BMPs related to water quality at facilities and properties
- 2) Track enhancement and BMP implementation efforts at the project level
- 3) Identify and track opportunities to enhance water quality through partnerships
- 4) Cooperate with watershed based approaches where possible

Current Activities

- Have started educating regulators on what DOT does, but DOT needs to do more of this
- The Highway Design Branch is currently developing a BMP design manual
- Participate in EEP program and merger agreements
- Stormwater pollution prevention plans are implemented at all facilities
- Operations is developing a bridge demolition BMP design
- Utilizing a new process to rehabilitate bridges using high pressure water
- All water is recycled during the new bridge rehabilitation process which is becoming a standard procedure. Implementation of this process was delayed due to DWQ concerns about pH.
- Developing mechanism for inventory of BMP devices and follow up assessment

Comments/Suggestions

- What does objective #4 really mean? Understand if watershed approaches work at a high level
- No relevance beyond EEP
- Is EEP really using the watershed approach through the full delivery process?

- EEP had developed watershed plans but it doesn't seem like this is being applied. Full delivery projects may not be in these watershed plans.
- HQR – High Quality Resources – DENR/DOT/FHWA/COE – are currently undergoing a process to agree on resources that require a higher level of consideration. However, different agencies keep adding to the list. The list has become so long that it is meaningless.
- DOT tries to be specific rather than open-ended
- Need consistency from all involved in developing the list of resources that require a higher level of consideration.
- Projects are debated on a “nickel and dime” basis instead of having global standards
- Need global standards for Agencies
- Agencies fear loss of control
- Agencies lose sight of cost, unlike DOT they have no delivery goal, cost constraints or accountability (bridge vs. culvert example). A bridge may be the better environmental alternative to a culvert, however, it can increase project cost significantly and may not yield increased environmental benefit.
- Identify design guidelines
- Develop a water quality guidance manual that identifies agency (regulators and DOT) base requirements
- Make agencies commit to specific language
- Need a water quality checklist for use by the DOT staff – Have regulators review checklist? Should regulators create the checklist? (Project focus)
- DOT has to find a way to make regulators utilize a consistent interpretation of the rules – this is a real frustration; DOT feels like it will never happen, despite repeated requests over the years.
- Need to know what regulators are really looking for and thinking/expecting.
- DENR can't pass standards that impact the cost and timing of projects without DOT Board approval
- Pursue delegation agreement w/DWQ
- Improve DOT delivery - for instance, issue nationwide permits in the merger process

Objective F – Enhance land resource management

- 1) Integrate local land use plans into the comprehensive transportation planning process to meet mobility, economic and environmental goals
- 2) Continue to manage facilities and property to enhance environmental stewardship and economical land management practices
- 3) Continue delegation of the erosion and sedimentation control and buffer programs

Current Activities

- CTP – integrates local land use plans
- Maintenance yards have improved their management of salt, sprayers, and truck washing, but are there other things they could be doing better?
- Maintenance yards have developed stormwater pollution prevention plans
- Indirect and cumulative impacts to air, water, and land resources are being documented at the project level

Comments/Suggestions

- Other natural, human, and cultural resources are missing from this objective
- Incorporate land use planning into DOT planning
- Minimize impacts to properties (home, business, cemetery, etc.) to control costs
- How can we incorporate all the pieces into the framework without being repetitive?
- This objective should include other pieces such as plant and wildlife resources.
- Re-word the title
- Objectives F1 and F2 are not worded clearly
- Should a performance measure be included in F1?
- Different business units may be doing things differently.
- Facility planning often does not consult with local land use (maintenance yards, etc.) just find property and build it. Could increase cooperation.
- Clean up contaminated maintenance yards based on risk assessments– some want it all cleaned up.
- Could more be done at maintenance yards (salt, sprayers, washing trucks)
- New facilities meet requirements – should old facilities be retrofitted?
- NPDES permit – need to identify how much money is spent and on what and need to identify priority sites
- Conduct an inventory of NPDES sites with maintenance needs
- Add Develop projects in consideration of land management
- Human Environment or Quality of Life needs to have its own objective

Objective G - Accelerate/streamline the environmental component of the project delivery process

- 1) Zero project delays due to permitting
- 2) Identify impacts, fund, and monitor the expense allocation to the EEP and other mitigation efforts
- 3) Identify appropriate mitigation funding sources and allocation of funds in TIP
- 4) Identify and track opportunities to partner with local governments and agencies to enhance the project delivery process
- 5) Explore delegation of environmental programs

Current Activities

- There is a team fixing the EEP/TIP funds allocation process
- DOT is evaluating whether they are getting their money's worth out of the EEP expenses
- Developing a consistent method to develop Division impacts for EEP
- Working to submit permits 9-12 months ahead with merger team to reduce program delays
- Two training classes, one detailed practitioner and one short, about the merger process have been developed
- The inter-agency leadership team identifies partnering opportunities
- The road widening and new location process has been changed. The timeline for planning and design has been adjusted and now emphasizes completing design and addressing permitting issues before obtaining right of way easements
- The new bridge replacement process will integrate PDEA, NEU and design teams
- Highway design, roadways, hydraulics and sediment and erosion control design have changed their process to focus more on planning and discussions with permit agencies in order to reduce the number of project modifications

Comments/Suggestions

- This objective should be re-worded to include consideration of the human and natural components of the project delivery process
- Public buy-in influences permitting and agency response
- Public acceptance is a missing component of "G"
- The public's expectation for quality of life is missing from this objective.
- Why not address determination of benefits?
- Focus on costs and benefits
- NEPA process is not addressed here, but it is also important
- Need more education on NEPA and Merger process
- Include the public involvement part of the NEPA process
- Need public support
- Permitting is not the only limiting factor
- DOT isn't recognizing the importance of better planning before TIP and NEPA
- Select better projects
- If projects are lousy why does DOT continue to support them?
- Integrate project planning and project development
- Section 106 is also an environmental program and needs to be addressed
- Identify 106 issues and requirements throughout the project process
- A whole part of DOT is left out of the framework
- Construction is missing from EMP process?
- Maintenance is missing from the EMP process?
- DOT and framework focus too much on "tail end" or end product – not on the earlier parts that are just as important
- Better pre-TIP process (Like Florida's EDTP)
- If good work is done early, the integration process will be good
- The integration process is good

- Zero project delays is an unrealistic goal, this isn't going to happen
- Poor relationships between regulators and DOT. The DOT and agencies are responsible for this. Emphasize teamwork enhancement
- Implement cross-training for DOT and Agency staff (on each other's work)
- Implement cross-training within DOT

Objective H – Implement and maintain the initiatives, programs and process improvements

- 1) Implement the Environmental Management Plan
- 2) Develop a comprehensive shared GIS database
- 3) Continue to enhance training and awareness of the environmental ethics of the Department
- 4) Develop a risk management plan

Current Activities

- Existing implementation committee should be better utilized
- GIS database is being discussed by multiple agencies regarding to what layers are required. The funding for this will hopefully come from the General Assembly
- FHWA/DOT Business plan – provide guidance on what to do
- Working on a plan to convert fuel sites to prevent contamination

Comments/Suggestions

- Re-invent the implementation committee and re-focus their efforts and mission, this will help with EMP implementation
- Integrate long range transportation planning and project development
- Need to focus on Project development as much as project implementation
- Emphasize the early part of the process as much as on permitting and project implementation
- DOT ownership throughout project
- Identify type and quality of training
- Identify specific training needs for individual jobs
- Employees should receive focused training for their position and more general training on other projects and DOT roles (cross-training)
- DOT employees are “Trained to Death” – make any training interesting, applicable and simple
- Planning is overlooked – systems planning is non-effective and political
- Too many TIP projects
- Too little involvement w/public, especially with TIP and project development
- Employees are stretched too thin – can't focus enough on individual projects
- Not enough staff to do job well, so need to reduce the number of projects
- Remove unlikely projects from consideration

- Introduce new hires to entire DOT objectives and efforts – introduce them to the overall operations summary, not just job-specific training
- Identify/track/document the environmental work and needs for different groups within DOT
- How can we predict “hot-button” issues?
- How can you identify future problems
- Will bridge replacements be an issue in the future?
- The GIS database needs to be developed, this will be an important resource

Summary and Conclusions based on Small Groups

The group felt that the human component of the environment is as important an objective as the others and that this was extremely under emphasized in the draft framework. People are the DOT's clients. The DOT needs to identify public expectations. All projects must include public involvement and consider the public's needs, wants, and protection. The DOT needs to obtain buy-in from the public on its projects for them to be implemented successfully. If there is public support for a project, the permitting process will proceed more efficiently. It was suggested that the framework should include a separate objective for the human environment. Noise is missing from the EMP and could be addressed under the human environment objective.

The group suggested combining air, water, and land into a single natural resources objective. The DOT needs to do a better job of evaluating each TIP project's quality and purpose. The DOT needs to document the many environmental activities already being performed and publicize this within DOT, with the public, and with regulatory agencies.

The goal of zero NOVs and zero project delays due to permitting was not believed to be achievable. The group felt that the EMP focuses too much on the end product (NOVs) and not enough on the planning process. The pre-construction process doesn't seem to be included in the EMP. Focusing on the end result excludes the years of prior effort it took to get to project construction. Some also felt that construction and maintenance were left out of the framework.

The group cautioned that the specific wording in the EMP will be very important. Make the plan measurable, especially the implementation components. The environmental stewardship policy should be removed from the framework and function instead as the mission statement for the EMP. All objectives should support the environmental stewardship policy.

Next Steps

Further comments can be provided to Ehren Meister with DOT or to J.D. Solomon with CH2M HILL. Employees interested in keeping track of the EMP development process can go to the DOT internet site: <http://www.ncdot.org/environment/development/management/>.

After the Division workshops are completed, the input from staff will be incorporated into the framework and EMP implementation strategies.