

Greenways

Mitigation News You Can Use

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North Carolina - Leading the way in advanced mitigation, despite growing pains



Frustrated by a project-by-project approach where mitigation repeatedly delayed project delivery,

North Carolina's Department of Transportation (NCDOT) collaborated with more than 10 state and federal natural-system agencies to co-create a more integrated way of handling wetlands impacts. The process began in 2001, when NCDOT and other agencies gathered to define the current obstacles and then design an improved model. This initial panel recognized that faulty communication and poorly synchronized mitigation/permitting processes had historically hindered project delivery and mitigation success. The panel concluded that mitigation should occur years in advance of project impacts and should replace unavoidable functional losses to wetlands and riparian buffers. To do this, the panel conceived and set into motion what is now called the Ecosystem Enhancement Program (EEP). It took two years to subsequently work out the planning, funding, consensus building and logistical details, as well as the transition planning for staff.

Once more details were fleshed out, NCDOT, the North Carolina Department of Environment and Natural Resources (NCDENR) and the U.S. Army Corps of Engineers, Wilmington District (Corps) established the initial EEP goals, operating guidelines and requirements, memorializing them on July 22, 2003 in

a Memorandum of Agreement (MOA). The EEP's mission: "to restore, enhance, preserve and protect the functions associated with wetlands, streams, and riparian areas, including but not limited to those necessary for the restoration, maintenance and protection of water quality and riparian habitats throughout North Carolina."

Under the MOA, the three agencies agreed that "mitigation for these transportation projects should occur before impacts and should be planned and executed in a comprehensive manner considering both the ecological needs within the relevant watershed and anticipated NCDOT impacts within that watershed."

In essence, this new program, EEP, shifted wetlands mitigation responsibility from NCDOT and moved it to NCDENR as an in-lieu fee program. Housed under NCDENR, EEP builds on an already existing program – the N. C. Wetlands Restoration Program (WRP), created by the N. C. General Assembly in 1996. Under the WRP, a project proponent can pay an in-lieu fee instead of providing mitigation if the Corps agrees wetland/riparian impacts are unavoidable and that off-site mitigation is acceptable to compensate for lost functions in a watershed.

As part of the WRP, staff developed comprehensive Basinwide Wetland and Riparian Restoration Plans for each river basin in conjunction with the N. C. Division of Water Quality's Basinwide Water Quality Management Plans. These plans assess the status of wetlands and riparian resources and identify degraded sites in each of North Carolina's 54 hydrologic Cataloging Units (CUs), prioritizing sub-basins within each CU based on how well they can serve as restoration sites to enhance functions and

values for the larger CU.

To create EEP, WRP was folded into the new program and then it was expanded to handle transportation impacts, with NCDOT funding the portion that handles transportation impacts. If a project qualifies, private developers can still pay into the in-lieu fee program, and NCDOT can also use the private in-lieu fee program for the occasional impact that does not fit into the EEP criteria as described in the interagency MOA that governs it.

The earlier WRP basin plans serve as the foundation for determining watershed needs, and in addition, EEP conducted Local Watershed Plans in areas where NCDOT was projecting future impacts. Under the new EEP model, NCDOT provides a seven-year projection of impacts to EEP and updates the projection annually, with as many specifics as possible (type and location of impacts). EEP then reviews the impact list and looks for appropriate sites for mitigation in the subbasins of the CU. If EEP cannot find an appropriate site, they expand their search to the full eight-digit CU, screening all the local subwatersheds for mitigation locations. If EEP still cannot find a site, NCDOT can look into alternative mitigation options, such as the private in-lieu fee program or a mitigation bank.

Dollars and sense

NCDOT pays EEP to plan the mitigation, acquire the land, construct the projects, monitor the progress and handle

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N.C. Ecosystem Enhancement Program



Restoring... Enhancing... Protecting Our State

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any necessary remediation that compensates for transportation impacts. EEP prepares a biennial budget after it gets NCDOT's annual impacts update, then NCDOT reviews the work plan before agreeing to the next funding cycle.

An external auditing group at NCDOT has audited the funding procedures 14 times in the last four years, and have thus far found no problems in the implementation. However, Dr. Greg Thorpe with NCDOT's Project Development and Environmental Analysis Group would like to see more transparency and details in how EEP is utilizing the millions of dollars the NCDOT issues each quarter. Thorpe noted that he reviews invoices each quarter ranging from \$7 - \$20 million, and for over two years, he has not been able to get the level of detail he would like regarding how these funds are spent.

"When you are signing invoices for millions, you want to make sure you know where the money's going," he said. He added that members of their Board of Transportation have complained repeatedly about this and he hopes in the near future, these types of issues can be addressed. He thinks that given recent developments regarding surplus mitigation credits (see below), the agencies will be able to work out a more detailed, transparent accounting system that will satisfy him and his Board.

Too much of a good thing?

According to EEP Director Bill Gilmore, many projected mitigation needs are already handled through year 2012. When selectively evaluating the status of wetlands today, it is apparent that there are at least 4000 acres available that are not needed within the current seven-year window of needs. In addition, tens of thousands of feet of stream restoration have been completed and are as yet unclaimed for projects. The overage is a result of a number of factors, including: the inability to apply wetland credits beyond the 8-digit watershed boundaries as specified in

the MOA, NCDOT initiatives taken prior to creation of EEP, excessive NCDOT-projected impacts resulting in EEP production overages, improved avoidance and minimization by NCDOT (resulting in less mitigation need) and a slow down in the NCDOT program due to overall cash flow issues (resulting in less need for the current seven-year plan that projects future impacts).

The seven-year plan is still valuable because for the first time, the participating agencies created a complete prediction of statewide and watershed mitigation needs, and were able to compare those needs to available assets. The resulting analysis has confirmed that wetlands, particularly in the eastern part of the state, are significantly overbuilt, while stream mitigation has

"Showing someone a site that is in the ground and functioning goes a lot further than a book of promises."

Scott McClendon, U.S. Army Corps

pockets of surplus but overall remains in need.

The existing overage leaves NCDOT in a quandary as to how they can utilize their paid-for efforts. In August, 2007, NCDOT, NCDENR and the Corps met to consider alternatives that would allow NCDOT to use the surplus assets or perhaps sell them. First, however, NCDOT will consider longer-term future needs beyond the seven-year highway program, looking at potential needs as far as 20 years to ensure that any sites under consideration of being dropped are not needed beyond the planning horizon.

Once this is done, the following steps can be considered:

- *NCDOT can petition (on a permit basis) for the use of mitigation sites beyond the current geographic watershed limits set by the MOA. If regulators accept this petition, watersheds with surpluses may be*

used to supplement mitigation needs for watersheds in need.

- *Developing mitigation banks with expanded service areas. This process may open up opportunities for some of the larger mitigation sites to serve multiple projects, and possibly develop additional mitigation for endangered species credits.*

- *NCDOT can sell the sites for a cash return. This could involve selling mitigation credits to third parties, or selling the sites for the land and recreational value. All alternatives under consideration would revise the mitigation "order" for future mitigation from EEP.*

An option considered but ultimately dropped was revising the EEP MOA. But according to Scott McClendon, Assistant Regulatory Division Chief with the Corps, due to the complexity of the issues surrounding surplus assets, allowing amendments to the MOA "was a can of worms no one wanted to open." He added that there are alternative remedies that would not necessitate changing the guiding agreement.

The problem with pooling

Because EEP manages both the NCDOT's impacts and also private party impacts via the in-lieu fee program, they can pool the impacts and consider larger tracts of land at mitigation sites. As Thorpe notes, "it is cost effective for the landscape, it is good for the environment, and some of the lands purchased may be good for more than just wetlands." All this makes ecological sense and helps preserve larger tracts of habitat versus piecemeal mitigation. However, it can also make it challenging to link a respective project's impacts to any particular mitigation site. And some of the NCDOT board members and division chiefs are frustrated at not having that nexus.

Thorpe said their fourteen field offices are headed by Division Engineers who are submitting permit applications

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EEP in Action

At right are before, during and after photos of an urban stream-restoration project in a city-owned park in Durham, NC. The waterway had been straightened into a ditch in the mid-1900s to speed up storm water drainage, causing severe erosion. The restoration created meanders and buffers to improve water quality and habitat. Photos courtesy of the Ecosystem Enhancement Program.

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associated with specific impacts relating to a project. They want to see what mitigation site is handling the impacts of their projects, and so far, that is not something EEP can provide. And the engineers are not the only ones who want this information.

Thorpe said, "It is next to impossible to answer to board members' questions regarding specific links between mitigation sites and NCDOT impacts." Thorpe noted EEP is updating its methods of accounting for impacts and this should enhance their ability to show stronger links between projects and related mitigation sites.

Double jeopardy

Another concern Thorpe raised is that sometimes the NCDOT is paying for mitigation more than once in order to meet the letter of the MOA and also satisfy the participating permitting agencies. If, for instance, the Corps thinks that onsite mitigation is necessary, NCDOT may have to do more than they expected at the project site in addition to paying into the EEP. Thorpe said so far three large projects required extensive and unexpected onsite mitigation even after NCDOT paid for mitigation offsite, due primarily to the preference for onsite mitigation whenever possible. Thorpe said he would like to see greater cooperation with the permitting agencies so that when NCDOT has already paid for offsite mitigation, this could be considered and incorporated into a situation where onsite mitigation is unexpectedly available.

Thorpe would also like to see the MOA interpreted more favorably to incorporate mitigation efforts that arguably might be eligible for projects but have been excluded. For one project in the mountains, NCDOT restored thousands of feet of nearby streambed, thinking it would fulfill the mitigation requirements of the project (the effort preceded the signing of the MOA). However, because the restoration site was outside the hydrologic cataloging unit that the project was in, it was decided, based on language in the MOA, that the site could not be used. So NCDOT paid approximately \$2 million into the EEP to address mitigation. Following this, the Corps saw opportunities for onsite mitigation and required NCDOT to do 10,000 feet of stream restoration on the project site.

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Straightened stream prior to restoration



Returning the waterway to a more natural meander



Restored!

While this happened only once, the potential for paying more than once for mitigation has NCDOT board members asking for ways to avoid the scenario ever happening again. Now the first restoration site is among those surplus credits that the agencies are discussing.

Too many constraints, not enough guidance

Packaging a program like this means clearly defined protocols and less flexibility for both the permitting agency and the mitigation specialists. Utilizing EEP means the Corps still issues per-project Clean Water Act Section 404 permits, but the Corps no longer reviews project-specific mitigation plans. Now mitigation is done programmatically, and must meet the requirements of the MOA, such as location and type of mitigation (in-kind).

"If you delegate this type of decision-making responsibility, you have to tie it up pretty tightly," noted McLendon. He added that since mitigation projects are not associated with specific impacts, you also cannot tailor mitigation plans accordingly. Also, the system's structure limits the Corps' ability to encourage different approaches. On the other hand, McLendon would like to see more guidelines about topics such as stream restoration. "We're up to our eyeballs in stream restoration; it's big business and everybody's got an opinion. We've had some fairly significant issues with folks moving channels that didn't need to be moved." He'd like to see standards as to what is acceptable to agencies regarding when it is appropriate to change stream channels.

Overall, McLendon felt there was a cost in setting up EEP so quickly. He said EEP hired a number of mitigation specialists, some of whom had limited experience with agency expectations. "We had a few projects come in the door we really didn't like. It would have benefited everyone if we had all sat down beforehand and talked about what the agencies' expectations were."

Due to aggressive timelines in the MOA, and because EEP was under scrutiny from the beginning to show success, McLendon noted that projects were constructed at an accelerated pace. He would have liked to see the process move a little slower. "What's a year compared to perpetuity in the life of a mitigation project?" he commented. He has concerns that some of the efforts will need to be revisited down the road.

McLendon also thinks having some initial pilot projects would have been helpful. "We started big. It would have been prudent to start smaller, but the NCDOT wasn't going to wait."

Still, says McLendon, EEP "lent consistency and credibility to the process, and hopefully labor savings," though he's not seeing the labor reduction just yet. He hopes in the future his staff will not have to review project plans as much as they are doing now. For him, that would be a great benefit. While EEP hired additional staff, McLendon has handled the transition on his own, and in retrospect, he thinks it would have helped if he had hired someone at the Corps to help with EEP oversight.

A step forward

Despite the current dilemmas, the North Carolina model is an improvement on the very unsatisfying process that preceded it.

"With all the complaints," said Thorpe, we've not had a single project delayed due to mitigation since the EEP." Previously, somewhere between 20-50% of projects were held up because of mitigation requirements. "We are able to send in our permit apps and say we're going to use EEP and we get the permits."

"The best thing is that we're not stuck in the old way of doing things," said the Corps' McLendon. Before, NCDOT would approach the Corps asking for a permit based on a "book of promises" rather than an up-and-running mitigation site. The Corps could not issue a permit without specifics, while the NCDOT wanted "iron-clad promises" before it committed to the mitigation. The two agencies were caught in a catch-22, and for some projects, the Corps refused to issue a permit, halting the transportation project construction until a better mitigation plan was in place. Now EEP has mitigation sites up and running before NCDOT approaches the Corps. "NCDOT used to come in with an application and we couldn't issue a permit until DOT provided a complete mitigation plan; now with EEP we just issue the permit and the DOT is off the hook for the providing the mitigation."

This makes the mitigation process much smoother for permitting agencies like the Corps. "Showing somebody a site that is in the ground and functioning goes a lot further than a book of promises," McLendon said. "Now they can say they did the work. And there's no liability for the Corps [because they can see the mitigation site in place]. It helps us make better decisions."

Another advantage of EEP is that it is helping NCDOT see the true costs of mitigation. According to the EEP's Gilmore, "The Board of Transportation had never seen mitigation costs as a single line item in the budget. When you extract the real costs and see it is \$200-500 million over 7-10 years, it blew them away. It has made everyone think about avoidance a lot more because the costs of mitigation were imbedded in the highway cost and not seen. When the costs are lined out, it's not pocket change."

Growing pains

North Carolina's efforts advanced mitigation efforts are not perfect. But they are courageous and ground-breaking in their application. Just as Florida's DOT opened the door to a collaborative process for reviewing projects, North Carolina has embraced massive changes in order to protect their riparian lands while still meeting the transportation needs of a growing state. There is much to learn and appreciate from their respective challenges and foresight as California continues to investigate its own unique path to meeting the tremendous pressures of project delivery while protecting the resources that define this ecologically diverse and resource-dependent state. There are no easy answers, but when you look around the country, there are extraordinary and creative models that serve as inspiration to this quest.

As NCDOT's Thorpe says, "It's been a wild ride." Hats off to N.C. for being brave enough to be among the first on the bucking bull and take the bruises that inevitably follow!

For more information on the EEP, go to:

<http://www.nceep.net/pages/abouteep.html>



After 25 years with Environmental, Veda Lewis steps into new work at Caltrans

It's been a rich and rewarding tenure for Veda Lewis at Caltrans - from environmental planning to wetlands mitigation to developing biological training courses. Now she will be taking those skills into her new position as a project management course manager with Headquarters' Project Management branch and bidding a fond farewell to over two decades of environmental service.

Lewis' connection to Caltrans goes back over 30 years to 1971 when she was in high school. She signed on as a youth aid and for the princely sum of \$1.86/hour ran errands for the staff engineers.

"It was my first paying job," she recalled.

Inspired by a desire to work with the natural world, she went on to earn her biology and then marine biology masters degrees at San Francisco State. Now infused environmental knowledge, she stepped in an unlikely direction and spent a year working for the Pacific Bell phone company. This was her hiatus before her long-term career. Here she helped direct workers through a maze of cables called "frames" as well as handling customer service. But it wasn't long before she found her way back into science, landing a job as an entry level environmental planner at Caltrans in 1981.

At first she consolidated internal documents reviewing outside projects. But soon she was assigned to help an environmental planner in District 4, Sid Shadle and she was happily immersed in the nitty gritty of project review and mitigation. She and Sid traded promotions over the next ten years, rising through the ranks until an opportunity at Headquarters arose in wetlands mitigation. Lewis stepped into the temporary assignment and once there, never left.

She was riding the first tide of wetlands mitigation, which in 1993 was a newly-emerging blend of art and science (still is) with a fledgling infrastructure of biologists across the state. At first, Lewis helped train others to delineate wetlands, and

soon she was so effective she had worked herself out of the job. So she stepped into site design and began networking with other specialists across all groups. Some of those specialists went on to co-create the beginnings of the now-highly recognized Society of Restoration Ecologists. In the 1990's, however, there was no society, no restoration journals and no established guidelines for this type of mitigation.

Lewis said she met quarterly with fellow biologists throughout the region, including staff from the California Department of Fish and Game, Resource Conservation Districts, U.S. Fish and Wildlife Service, and Pacific Gas and Electric. At these informal gatherings, attendees would talk to each other about their current projects and methods.

"That's where you got your information," said Lewis. "It was a core group of people into sharing ideas."

Eventually, wetlands mitigation widened into habitat mitigation and Lewis' focus shifted from site design to effective monitoring.

"How to monitor effectively can be a can of worms," she said. "It is very difficult to do statistically valid sampling that tells us more than the less qualitative methods." Lewis helped develop monitoring that was practicable as well as effective. This was essential in helping Caltrans meet its monitoring commitments efficiently.

Now nearly ten years at Headquarters, Lewis saw an opportunity to expand her skills even further. In 2001, a \$15 million program at Caltrans arose which evaluated current trainings and offered staff a chance to learn how to develop better educating tools overall. Lewis began studying this and for the next four years she was a training developer, helping to enhance the content and delivery of environmental information to Caltrans staff.

Then in 2006, her previous position in mitigation reopened, so she decided to return to the mitigation field, where her scientific and organizational skills made her an excellent candidate to manage a contract with UC Davis' Information Center for the Environment. This project addressed mitigation forecasting and analyzed existing mitigation work at Caltrans. As the UC Davis effort concludes, Lewis will be beginning her work in Project Management.

Lewis said she will miss the background of knowledge she had gained with her over two decades working with Environmental, but looks forward to the challenge of learning a fresh approach to training. When asked about her parting wishes for mitigation at Caltrans, Lewis said, "I hope Environmental realizes what a complex topic mitigation is." She would like to see either more specialists in-house working on mitigation or more experts subcontracting with Caltrans to strengthen this arena. And she would like to incorporate more ways for Caltrans staff to learn from their efforts on existing projects. She also hopes that the Caltrans-UC Davis statewide database of mitigation projects will be utilized by all the districts and offer not only a way to network on mitigation efforts, but also to track the costs of this kind of work.

As she transitions to her new work, Lewis said she will miss the wonderful coworkers she has known in Environmental. She added that the most important thing she learned overall was to be aware of the political climate of her agency and recognize what will be supported and what will not.

"You can't ignore politics," she said, "not if you want to get things done."

As new staff comes in, she noted, ideas and politics will change. Fresh ideas and new vision will constantly allow Caltrans to grow and continue to meet the ever-changing balance of building roads and honoring the rich landscape that makes California so unique.

We wish Veda Lewis all the best and also thank her for her dedication and service with Environmental! She will be missed.



Part II - Public Access, Nexus Requirement and Advanced Mitigation

In this issue we continue our conversation with the California Coastal Commission liaisons, Tami Grove and Lee Otter. Last issue we reviewed the overall work of the Coastal Commission, its jurisdiction, and how the Coastal Act can be more stringent in its requirements than the California Environmental Quality Act (CEQA). We also talked about how the Commission defines “habitat” and how it delineates wetlands in comparison to the Army Corps. Finally, we talked about how agricultural land is a protected resource under the Coastal Act. Next we will address Public Access, the Commission’s nexus requirement and advanced mitigation practices.

Another policy area of importance is under the Coastal Act is public access. The Coastal Act’s mandated goal of maximizing public access is applied not only to accessways to get to the beach, but access along the shoreline (e.g. the California Coastal Trail system). Grove said “unavoidable negative impacts to public access are quite commonly required to be mitigated. Because public access is not a required resource area to evaluate under CEQA, Caltrans staff sometimes overlook this issue in the planning and analysis of their projects.” The concept of public access applies not only to pedestrian uses, but also to bike routes, roads and transit systems that allow the citizens to get to—and move along—their coast. So if mitigation is required, it must be created in a way that considers the various modes of public access that are appropriate to the project context—while also protecting the sensitive resource features of the mitigation site

A related coastal program area that may be of interest to Caltrans’ project managers pertains to conflicts that sometimes arise between meeting policy requirements. While Coastal Act policies generally can be harmonized through careful project design, occasionally projects may create a conflict between two or more Coastal Act policies (say, providing public access vs. protecting sensitive resources). When these special situations come up where the Coastal Act is the standard of review, the Legislature has provided a balancing mechanism in the law for conflict resolution.

After weighing the relative benefits and impacts, the Commission is authorized to determine what course “on balance” is most protective of the public interest with respect to coastal resources.

Thus, understanding the various Coastal Act (and, if applicable, Local Coastal Program) policies becomes key in determining what projects will ultimately work in the Coastal Zone. While the development itself must be considered, particularly from the standpoint of whether impacts can be avoided, the mitigation of unavoidable impacts also must be comprehensively factored into the overall project design and execution. Much frustration and potential time delays can be avoided if planners consider both Coastal Act and LCP policies from the inception of a project’s design.

One factor to remember in identifying appropriate mitigation is that the courts have increasingly required regulatory programs to make a strict nexus between allowable mitigation and the actual impact. The Commission and its local government partners accordingly will usually look for in-kind mitigation in the same “system” as the impact, meaning like mitigation in the same region where the damage will occur. So if mitigation sites are not available near the site of impact, demonstrating the adequacy of alternatively proposed mitigation measures will be more of a challenge.

Note, too, that most mitigation activities must also be properly permitted, just like the project. Due to the broad definition of “development” in the Coastal Zone, trenching channels, excavating for hydrology, removing vegetation, planting new vegetation, erecting fencing, etc. would all likely trigger the definition of development and would therefore be subject to coastal development permit requirements.

Once all these factors - the avoidance policy, ESHA definitions, public access needs, nexus requirements, and permit acquisition – are better understood, Caltrans staff will be in a better position to address what needs to be done to build or maintain projects in the Coastal Zone. But without early attention to all these details, biologists trying to get mitigation proposals accepted may be frustrated and surprised.

“Because public access is not a required resource area to evaluate under CEQA, Caltrans staff sometimes overlook this issue in the planning and analysis of their projects.”

-Tami Grove, CA Coastal Commission

One way to prevent future problems, Grove noted, is early and comprehensive consultation with local government and Commission staff. And, Grove said, it is even better if other resource agencies and local governments join in that conversation. “We like it when can sit down with all the involved parties at the table when a project is adequately defined and being designed. That way everyone can better understand the full set of resource issues to be addressed,” Grove said. “It also gives Caltrans a chance to make design-phase choices that can be more cost-effective in the long run.”

And while the difference between projects affecting the coastal zone versus elsewhere can make advanced mitigation more challenging, Grove did say that Commission staff is supportive of the notion of meaningful, early, mitigation. “Developing proven mitigation sites prior to the approval of future projects can be tricky,” said Grove, “but we conceptually like the notion of advanced mitigation because actual performance can be demonstrated and fully understood in the context of the specific project reviews.” Proven mitigation sites thus also could result in lower mitigation ratio requirements since much of the uncertainty and time lags that factor into those ratios has been removed. Grove noted that there is increasing interest in the North Coast Region, which is rich with wetlands, to identify a means to do advanced, broad scale wetland enhancement and restoration to better mitigate for unavoidable project impacts to wetlands in that region.

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This overall early approach to designing projects and mitigation might be compared to the track & field high hurdles event. The role of interagency liaisons is not to lower the hurdles, but to identify them early on and work with Caltrans to determine the most effective course of action. Ultimately, it comes down to this: if we can all see, ahead of time, where we need to jump, and how high, we can plan the most effective course, avoid those obstacles that don't actually need to be jumped, muster the resources needed to surmount those that do, and it will be the public whom we serve that wins the race.

In the coastal zone area, more than other regions of the State, long term timelines are a necessary part of the mitigation process. It behooves Caltrans staff to learn how this jurisdiction is different and operate from that understanding. In the end, early consultation and improved understanding about what happens in the coastal zone will ultimately improve project delivery while protecting one of California's most important regions.

ICE Update: Forecasting Database and Pilot Projects

by Jim Thorne and Evan Girvetz



The Information Center for the Environment (ICE) is assessing ways that Caltrans could improve its biological mitigation planning process and evaluating ways to improve the current practice of project-by-project mitigation assessment done within a short time horizon of a few years. As noted in the February, 2007 issue of *Greenways*, ICE is using GIS analysis and conservation planning principles to develop multi-scale long-range (10-year) mitigation need forecasts for each Caltrans district, county, and watershed in the State of California. These mitigation forecasts will be useful to Caltrans in determining some of the cumulative mitigation needs of multiple projects for early biological mitigation planning in a given area. In addition, two pilot study watersheds—Elkhorn Slough in Monterey and San Benito Counties (Caltrans District 5), and Pleasant Grove Watershed in Placer, Sacramento and Sutter Counties (Caltrans District 3)—have been selected by Caltrans headquarters Environmental staff for intensive modeling of mitigation needs.

The statewide multi-scale mitigation needs forecast was developed based on available data relevant to biological mitigation and has been integrated into a database that can be queried by Caltrans district, county, or any level of watershed in the Calwater database. For a given geographic area that is queried (district, county, or watershed), the database can return biological resources expected to exist in the area, as well as estimated potential impacts to wildlife habitats from programmed Caltrans projects. Queries can also target a specific type of project programmed to occur (e.g. road repaving vs. road widening vs. new road), so the user can see an estimate of impacts to the biological resources for that project.

Although this is a rough estimate of the potential

impacts of these projects, the database gives Caltrans environmental planners a first-cut estimate of the types of impacts they will encounter over a 10 year horizon. This estimate ideally should be accompanied by more detailed analyses including "ground-truthing" of the analysis to get a more robust estimate of the actual impacts the programmed projects, and the identification of potential sites (i.e. mitigation banks or parcels) that would be suitable for mitigation. This more detailed study is being done for the two pilot study watersheds: Elkhorn Slough and Pleasant Grove.

Working with biologists in District 5, the Elkhorn Slough watershed was selected as a detailed pilot study area and analyzed more intensely to assess mitigation needs for programmed (funded) Caltrans projects in this area. Local stakeholders and land managers (most notably the Elkhorn Slough Foundation and the California Department of Fish and Game Elkhorn Slough Reserve) were identified and contacted to share expert knowledge and data about the watershed that was not available at the statewide scale. Local parcel data and a fine-scale landcover map that identified more Californian plant communities were added to data library collected for the statewide analysis.

Stakeholders and land managers helped target critical habitat types for the watershed such as coastal sage scrub. The representative habitats were then included in a computer-generated conservation analysis that identified a suite of parcels which met the pre-defined conservation goals for the watershed. Landscape connectivity analyses were also included in the identification of suitable parcels that could meet mitigation needs. As a result, transportation planners and agency regulators can evaluate a suite of options that provide the greatest biological value when looking at acquisition sites for early mitigation. Acquiring mitigation sites earlier in the planning process can provide both cost savings and enhanced ecological benefits.

Working with biologists from District 3 in the Pleasant Grove watershed, ICE initiated a second pilot project that built on knowledge gained from the first pilot study by contrasting the different environmental and management issues in each respective pilot area. District 3 does not have the same level of active conservation groups as the first pilot project region, so ICE researchers used our own estimates of needed levels of conservation for different habitats.

District 3 also does not have as fine a vegetation map, so this study provides model results that may be more representative of the level of information that can be obtained for many other parts of the state. Landscape connectivity analyses were also conducted for this region to see if mitigation actions could help maintain some wildlife connections between the Sierra Nevada foothills and the Sacramento River.

Lessons learned from this project will eventually lead to a road map for Caltrans to follow in assessing the cumulative mitigation needs for Caltrans districts, counties, and watersheds, and aid in creating early mitigation strategies for multiple site. This multi-scale approach will allow Caltrans biologists and planners to triage which areas are in need of the most mitigation planning efforts. The areas in need of the highest levels of mitigation planning can be prioritized to have more intensive investigation as is being demonstrated in the pilot study watersheds. Ultimately, this project will help Caltrans leverage funds and form agreements with other agencies in order to acquire land or easements that would mitigate the combined impacts of multiple projects in a given area.

Federal Highways and Caltrans sign Joint Stewardship Agreement

On September 4, 2007, representatives of the Federal Highway Administration and the California Department of Transportation (Caltrans) signed a new "Joint Stewardship and Oversight Agreement." This document was developed in accordance with the new transportation act entitled "Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users" (SAFETEA-LU). It is intended to facilitate accomplishment of national, state and local goals of maintaining a national highway network, improving its operation and safety, and providing for national security while protecting and improving the environment.

While the agreement addresses many facets of the transportation program, its environmental program purpose is to provide for a single, unified, environmental review process. Pursuant to Sections 6004 and 6005 of SAFETEA-LU, most environmental review responsibilities and legal compliance, such as those of the National Environmental Policy Act, have been assigned to Caltrans.

The agreement is expected to be available soon on the Caltrans and Federal Highway Administration Home pages. In the meantime, if you want a copy, contact Larry Vinzant at (916) 498-5040.

Governor Signs Bill that Allows Caltrans to Transfer Interests in Land to Nonprofits

On October 8, 2007, Governor Schwarzenegger signed into law AB 1246, a bill introduced by Assembly Member Sam Blakeslee which would allow a state or local public agency to transfer an interest in real property to a nonprofit organization for the purposes of mitigating adverse impacts due to project development. Essentially, the legislation was introduced to clean up last year's AB 2746 (also introduced by Blakeslee) which authorized a nonprofit to hold title to and manage an interest in real property. Section (b) of that legislation was read by Caltrans legal staff as only applying agencies which have permitting authority over projects, which would not include Caltrans.

Prior to this bill, Caltrans could not contract directly with a nonprofit, but instead must work through local agencies. This has made it difficult for Caltrans to transfer the management of mitigation sites to a third party in areas where local agencies are not equipped to handle such a responsibility. Many biologists have mentioned their frustration regarding the challenge of handling mitigation sites when local nonprofits are willing and able but contractually excluded from accepting real property or an interest in property, such as an easement, directly from Caltrans.

To remedy this, the California Council of Land Trusts sponsored AB 1246. Caltrans has not issued a formal opinion on the bill, but one concern could be that it does not address the transfer of endowment funds, which may end up as a significant omission given the high costs of managing lands. (see bill at right)

AB1246: The people of the State of California do enact as follows:

SECTION 1. Section 65965 of the Government Code is amended to read:

65965. (a) For the purposes of this section, the following definitions apply:

- (1) "Direct protection" means the protection and preservation of natural lands or resources, including, but not limited to, agricultural lands, wildlife habitat, wetlands, endangered species habitat, open-space areas, or outdoor recreational areas.
- (2) "Stewardship" encompasses the range of activities involved in controlling, monitoring, and managing for conservation purposes a property, or a conservation or open-space easement, as defined by the terms of the easement, and its attendant resources.

(b) Notwithstanding any other provision of law to the contrary, if a state or local public agency requires a property owner to transfer to the agency an interest in real property to mitigate any adverse impact upon natural resources caused by permitting the development of a project or facility, the state or local public agency may authorize a nonprofit organization to hold title to and manage that interest in real property, provided that the nonprofit organization is all of the following:

- (1) Exempt from taxation as an organization described in Section 501(c)(3) of the Internal Revenue Code, and qualified to do business in the state.
- (2) A "qualified organization" as defined in Section 170(h)(3) of the Internal Revenue Code.
- (3) An organization that has as its principal purpose and activity the direct protection or stewardship of natural land or resources, or cultural or historic resources, including, but not limited to, agricultural lands, wildlife habitat, wetlands, endangered species habitat, open-space areas, and outdoor recreational areas.
- (c) If a state or local public agency, in the development of its own project, is required to transfer an interest in real property to mitigate an adverse impact upon natural resources, the agency may transfer the interest to a nonprofit organization that meets the requirements set forth in paragraphs (1) to (3), inclusive, of subdivision (b).
- (d) The recorded instrument that places title with a nonprofit organization pursuant to subdivision (b) shall include, at a minimum, a provision that if the state or local public agency that authorized the nonprofit organization to hold the title, or its successor agency, determines that the interest in real property that is held by the nonprofit organization is not being held, monitored, or managed for conservation purposes in the manner specified in that instrument or in the mitigation agreement between the state or local public agency and the nonprofit organization, the interest in real property shall revert to the state or that local public agency, or to another public agency or nonprofit organization qualified pursuant to subdivision (b), approved by the state or local public agency.
- (e) A state or local public agency shall exercise due diligence in reviewing the qualifications of a nonprofit organization to effectively manage and steward natural land or resources. The state or local public agency may adopt guidelines to assist the agency in that review process.

Send comments, questions regarding *Greenways*
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