



President's Letter to Members

The NAEP Place to be in 2014: St. Petersburg in April

For the January-February column, I wish to make one last pitch for the upcoming 39th Annual Conference: Changing Tides and Shifting Sands. Downtown St. Petersburg is an outstanding venue and location for the conference, a block from the Tampa Bay waterfront and within walking distance to numerous restaurants and attractions. The conference will have

something for all environmental professionals, including you. The week will be busy. If you have not signed up yet, here are some highlights that can perhaps persuade you to make a last minute decision to attend the conference.

On Monday, April 7, NAEP provides you with the best in professional education opportunities. The Career Development Seminar covers the value of the Certified Environmental Professional credential, new trends in online learning, publishing a peer reviewed article, and the future of environmental careers. There are in-depth training sessions on NAEP's best practice principles project with the Council on Environmental Quality, coastal landscape visualization, and endangered species.

On Tuesday, Wednesday, and Thursday, April 8-10, the halls of the Hilton Hotel will be busy with everyone attending the education track of their choice. I count 13 tracks, including the premier NEPA training session in the country which proves every year to be an essential update on new developments in the field. However, there are 12 other tracks. As a NEPA professional, you are also usually in charge of the full umbrella of compliance with other laws and regulations. Familiarity with these other laws and regulations will likely provide unexpected opportunities in your career. They are all part of the toolbox needed for the environmental professional. We have a full array of tracks, covering the full array of topics you need to know. There are old standbys (brownfields, wetlands, land management, transportation) as well as hot topics (visual resources, cultural resources, sustainability, remediation). Choose wisely and sample as many tracks as you can.

Our keynote speakers in the morning and at lunch will cover emerging trends in transportation project delivery, environmental employment, and the Florida Wildlife Corridor concept. Each of these talks promises to be informative and forward-looking. Plan to attend them all.

On Wednesday night, April 9, come to an evening of fun at the Salvador Dalí Museum. As an NAEP conference attendee, you will have the museum to yourself for two hours, so there will be time to view all the galleries. Of course, the gift shop will also be open for the first hour for your souvenir needs.

Deserving attention are the National Environmental Excellence Award winners. These awards recognize noteworthy accomplishments in the environmental field. They are announced during our luncheon and other plenary sessions.

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NAEP MARCH 12, 2014 WEBINAR ANNOUNCEMENT

SUSTAINABLE REMEDIATION. Go to WWW.NAEP.ORG to register

Over the last decade, many sectors of industrialized society have been rethinking behavior and re-engineering practices to reduce consumption of energy and natural resources. That includes site owners, regulators, academics, and remediation specialists. This has led to the evolution of sustainable site environmental remediation practices from conceptual discussions to standard operating procedures. The Sustainable Remediation webinar will be a fast paced overview of Sustainable Remediation that includes industry, government, and consultancy perspectives. You will hear how different organizations are working to incorporate societal and economic considerations into environmental cleanup projects. We will attempt to make some sense of the efforts that are being made to collaborate, educate, advance, and develop consensus on the application of sustainability concepts throughout the lifecycle of remediation projects, from site investigation to closure.

Speakers will include site owners, state and federal regulators, environmental remediation engineer, lawyer, and a remediation technology developer. See full list below:

Stewart Abrams, Vice President & Corporate Director of Remediation Technology, Langan Engineering & Environmental Services, Inc. - Mr. Abrams has over 30 years of experience in site remediation, Brownfields redevelopment, and engineering design. He is an expert in remedial technology, with particular emphasis on bioremediation, chemical oxidation/reduction technologies, soil vapor extraction, dual-phase extraction and air sparging. He also has extensive experience in water process engineering, notably water and wastewater treatment and industrial waste treatment. He is a Vice President at Langan Engineering and Environmental Services, Inc. where he also serves as the corporate Director of Remediation Technology. Mr. Abrams served as a consultant member of NJDEP's Environmental Justice Advisory Council from 2000 to 2013. In that capacity, he was involved in the development of several EJ policy developments and issues. He has also served on a volunteer basis as an advisor to community based organizations on EJ issues. An active member of the Sustainable Remediation Forum (SURF), he served on the Board of Trustees from 2012 through 2013. Mr. Abrams holds three degrees from Rutgers University: a B.S. in Civil Engineering; a B.A. in Political Science and a M.S. in Environmental Science. He is a Licensed Professional Engineer in several states.

Dr. David E. Ellis - David E. Ellis worked at DuPont for 35 years, and recently retired as Principal Consultant in the Corporate Remediation Group. Dave worked primarily in the science and engineering of subsurface cleanups and led DuPont's remediation technology program. He founded and chaired the Sustainable Remediation Forum, the UK SABRE Project, and the RTDF consortium on bioremediation of chlorinated solvents. He served on three NRC committees - those investigating natural attenuation, source removal, and future alternatives for site management. Dave has been very active in ITRC, serving on the Board of Advisors and as a lead instructor for several classes. Dave received his B.S. from Allegheny College, and his M.Phil and Ph.D from Yale University.

Paul Favara, Global Practice Director for Site Remediation, CH2M Hill - Paul Favara is a Vice President for CH2M HILL and Global Practice Director for Site Remediation and Revitalization. He has over 25 years of experience in site characterization, remediation engineering, and implementing site cleanup remedies. He has been a member of the Sustainable Remediation Forum (SURF) since 2007, and has served as an officer on the SURF Board of Directors as Vice President in 2010 and President in 2011. He works in CH2M HILL's office in Gainesville, Florida and is a professional engineer in Florida.

Angela Fisher, Environmental Engineer, Environmental Technology Laboratory at General Electric's Global Research Center - Angela began her GE career on the remediation team in the areas of technology R&D, sustainability, and project management. Angela currently works on GE's Ecoassessment Center of Excellence team where she conducts product life cycle assessments (LCA) & sustainability analyses and develops life cycle management tools and resources for the company. Angela received her undergraduate and graduate degrees from The Pennsylvania State University. Her current research interests include life cycle assessment, design for environment, and the development of sustainable approaches and the promotion of life cycle thinking throughout the remediation process.

Paul Hadley, Senior Hazardous Substances Engineer, California Department of Toxic Substances Control - Paul has been active in the Sustainable Remediation Forum (SURF) since the organization's inception. Over the last 25 years he has authored numerous publications on topics related to risk and remediation, and more recently on sustainable remediation.

Stella Karnis, Sr. Manager Environmental Affairs, Canadian National Railway - Stella has nineteen years of experience in the environmental field. Her responsibilities include management of the assessment and remediation and compliance programs for CN, in Canada and the U.S. She is responsible for reducing the company's environmental risks related to historic and current operations at CN sites and ensures the continuous improvement of the program.

Carlos S. Pachon, Senior Environmental Protection Specialist, USEPA - A main focus of Carlos' work is identifying and advancing innovative developments and technologies in cleaning up contaminated sites. One of his current priorities is leading an effort to advance EPA's Principles for Greener Cleanups. These efforts require reaching across organizations within EPA the "Federal Family", as well as private companies and State and local entities seeking to advance sustainability in our nation's nearly \$10 billion remediation market (<http://clu.in.org>). Carlos has a BS in Watershed Management from Colorado State University, a Master's in Environmental Management from Duke University, and an Executive MBA from Georgetown University in DC.

Moderated by: Dick Raymond, President, Terra Systems, Inc. - Terra Systems Inc. is an environmental biotechnology company that is celebrating its 22nd anniversary. During the past 30 years, he has designed and managed numerous successful in-situ and ex-situ soil and groundwater remediation projects in the United States, Brazil, Japan, and Europe that have incorporated sustainability principles.

Date and Time: Wednesday, March 12, 2014 at
1pm ET (12pm CT, 11am MT, 10am PT)

Duration: Event will last 90 minutes

Location: Wherever it is convenient for you

Questions: Please contact Tim Bower at 856-283-7816
or email him at naep@naep.org

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- NAEP Members: \$79.00
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please consider joining to receive the member rate for this and future events)
- Full time Students can participate at a reduced fee of \$39.00



To all NAEP Members, Chapter Affiliate Members and other Environmental Professionals:

Don't miss this amazing opportunity to learn about Disaster Preparedness, Planning, and Recovery. We have three excellent speakers lined up for this NAEP webinar on March 26th. You will learn from a principal in FEMA's National Disaster Recovery Framework FHWA's as well as environmental professionals leading the implementation of this plan in recovery and planning efforts. With the increasing frequency of natural disasters, hazard planning is becoming increasingly important in all aspects of environmental practice. These speakers will enlighten us to more ably contribute to our professional lives, our clients' success and the advancement of the profession as a whole. See webinar details below – Sign up today!

NAEP MARCH 26, 2014 WEBINAR ANNOUNCEMENT

Disaster Preparedness, Planning, and Recovery

Go to WWW.NAEP.ORG to register

The National Association of Environmental Professionals (NAEP) invites you to attend an educational webinar on “The Role of the Environmental Professional in Disaster Preparedness, Planning, and Recovery.” This webinar addresses the best practices, federal planning, and land use planning initiatives being developed to aid in the resiliency of our communities in the face of natural disaster.

With the recent events in the Philippines and domestic emergencies from extreme winter events, as well as recovery from Hurricanes Sandy and Katrina, there is a growing question about the role of the environmental professional in planning for such events and the integration of related information into the environmental process. Major environmental disasters, such as super storms, flooding, and wildfire, are increasing in both frequency and intensity. Environmental professionals have the potential to be invaluable in environmental disaster preparedness and disaster recovery due to their diverse skill sets, such as nimble and adaptive resource management, regulatory compliance and development, and public coordination. This webinar aims to evaluate the role of environmental professionals in disaster preparedness and recovery both in the past and in looking forward.

Please join us as a Hurricane Sandy recovery support practitioner, FEMA representative, and The Nature Conservancy resiliency leader, speak on the exciting ideas and initiatives being accomplished under the National Disaster Recovery Framework, including lessons learned and real examples from the Hurricane Sandy recovery and in planning efforts being conducted jointly with the Department of the Interior and the Nature Conservancy. Our panel of experienced speakers is as follows:

- **John A. Miller, P.E., CFM, CSM** – Water Resources Engineer and Certified Floodplain and Stormwater Manager at Princeton Hydro, presenting lessons learned in recovery efforts from Delaware River flooding and from Hurricane Sandy in New Jersey.
- **Karen Helbrecht** – Mitigation Planner, FEMA Headquarters, Washington, DC, speaking on the National Disaster Recovery Framework.
- **Sarah Woodhouse Murdock** – Director of U.S. Climate Change Adaptation Policy at The Nature Conservancy, discussing the strategies of federal flood hazard risk reduction through Conservancy place-based conservation examples.
- **Moderator: Erica Boulanger** – Senior NEPA Planner, Cardno TEC; 10-year NEPA practitioner.

Date and Time: Wednesday, March 26, 2014
at 1:00 pm ET (12 pm CT, 11 am MT, 10 am PT)

Duration: Event will last 90 minutes

Location: Wherever it is convenient for you

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or email him at naep@naep.org

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please consider joining to receive the member rate for this and future events**
- **Full time Students can participate at a reduced fee of \$39.00**



Editor's Note: We are very pleased to be able to provide the following article by Daniel Mandelker. It was previously published by the Environmental Law Institute. This is an important article for NEPA practitioners and I believe will be a reference article for many of us in the future. I want to thank Christy Overstreet, Volkert's office administrator for working so hard to get this article ready for publication. She really did an amazing job of reproducing the original document from a pdf document to a format we could use in this newsletter. This process however did make one small problem, the links do not all work directly. Please copy and paste any link you are interested in to an internet search engine. The referenced article will come up. I want to also point out that Mr. Mandelker uses the E-News as a reference in his article. This is a first for us and we are grateful.



Daniel R. Mandelker is a leading scholar and teacher in land use law, environmental law, and state and local government law. He was the principal consultant and contributor to the American Planning Association's model planning and zoning legislation project. He also was the principal author of amendments to the New Orleans city charter that require a comprehensive planning process and give the comprehensive plan the force of law. Additionally, he was also the principal consultant to a joint American Bar Association committee that prepared a model law for land use procedures that was adopted by the ABA House of Delegates. Mandelker received the ABA's State and Local Government Section Daniel J. Curtin Lifetime Achievement Award. He has lectured abroad in England, Spain, Israel, and other countries.

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Growth-Induced Land Development Caused by Highway and Other Projects as an Indirect Effect Under NEPA

By Daniel R. Mandelker

Summary

Growth-induced land development caused by highway and other projects must be considered as a significant indirect effect under NEPA. For this review, lawyers must look to the regulations adopted by CEQ specifying the causation and foreseeability tests for indirect effects. Several reports discuss procedures for deciding whether a highway could cause growth-induced land development, and recommend a prescreening process to make this decision. Case law also addresses when indirect effects must be considered. The cases pay limited attention to causation and foreseeability requirements, and agencies did not use a prescreening process in any of the decided cases. However, the criteria courts used to decide when growth-induced land development would occur are consistent with those suggested in the highway project reports.

Assume a new highway is built in an undeveloped area. The highway improves accessibility and is likely to attract growth that induces new development, such as a shopping center at an interchange. Local land use plans and regulations decide whether this development can be built, and what it will look like. But that is not all. If the highway is funded

with federal assistance, the National Environmental Policy Act (NEPA)¹ applies.² If the federal or state agency prepares and environmental impact statement (EIS) or environmental assessment (EA), it may have to discuss the environmental effects of the shopping center as an indirect effect of the highway, and

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Author's Note: I thank Uri Avin at the National Center for Smart Growth Research and Education, University of Maryland; Robert Kuehn, Washington University School of Law; Judith Lee, Environmental Planning Strategies, Inc.; and Lamar Smith, Federal Highway Administration, who reviewed various drafts of the Article. I also thank Dorie Bertram, Director of Public Services and Lecturer in Law, Washington University Law Library; and Kathie Molyneaux, Interlibrary Loan/Faculty Paging Assistant, Washington University Law Library, for their invaluable assistance, and the students who took my Environmental Litigation seminars in the fall of 2011 and 2012 for their ideas and insights. The ideas in this Article, of course, are my own.

1 42 U.S.C. §§4321-4370h, ELR STAT. NEPA §§2-209.

2 See 42 U.S.C. §4332(2)(C)(i) (2006 & Supp. 2012) (proposals for major federal actions that significantly affect the quality of the human environment to have detailed statement on "the environmental impact of the proposed action"). Federal funding makes the highway a federal action, and it is likely to be a major project.



Growth-Induced Land Development *Continued from page 4*

any measures to mitigate³ the environmental effects it causes. Other projects, such as airport improvements, can also cause growth-induced land development as an indirect effect.⁴ Council on Environmental Quality (CEQ) regulations define environmental effects and distinguish them from direct environmental effects.⁵ A direct effect is an effect “caused by the action [that] occur[s] at the same time and place.”⁶ An increase in noise and air pollution caused by a highway project is an example. An indirect effect is “caused by the action and [is] later in time or farther removed in distance, but...still reasonably foreseeable.”⁷ Effects associated with growth-induced land development are an example that is given in the regulation.⁸

Decision-making on indirect effects involves federal, state, and local agencies. Highways are an example. The Federal Highway Administration (FHWA) has NEPA responsibilities for federally assisted highways, but NEPA compliance duties may have been assumed by a state transportation agency.⁹ Local govern-

ments usually plan for and regulate new development, and state agencies are involved if state permits are required. Neither federal nor state transportation agencies have this authority. Nevertheless, FHWA or the state agency must consider the indirect effects of growth-induced land development in their NEPA review if they decide it could occur.¹⁰ Similar authority problems arise for other projects that can cause growth-induced land development, such as airports.

This Article considers the duty of agencies to discuss growth-induced land development as an indirect effect. Part I explains the CEQ regulation, and a causation test adopted by the U.S. Supreme Court that can apply to indirect effects. Part II reviews several reports prepared for highway projects that discuss how agencies can decide whether a highway could cause growth-induced land development. They recommend a pre-screening process in which an agency can apply criteria to decide whether growth-induced land development is foreseeable. Agencies can adapt these methods for use in other projects.

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3 Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 19 ELR 20743 (1989) (agency has responsibility to discuss, but not to implement, mitigation measures); 40 C.F.R. §§1502.14(f), 1502.16(h) (2012) (defining mitigation). If the agency prepares an EA, it can propose mitigation measures as the basis for a finding that significant environmental effects will not occur. DANIEL R. MANDELKER, NEPA LAW AND LITIGATION §8:57 (2013).

For a discussion of mitigation options for growth-induced land development, see THE LOUIS BERGER GROUP, DESK REFERENCE FOR ESTIMATING THE INDIRECT EFFECTS OF PROPOSED TRANSPORTATION PROJECTS 95-99 (National Cooperative Highway Research Program, Report No. 466, Transportation Research Bd., 2002), available at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_466.pdf [hereinafter DESK REFERENCE]. The report recommends a variety of land use regulations, such as access controls, growth management regulation, resource management and preservation regulations, and transfer of development rights. These are local regulations, but they must be discussed in an EIS. See Robertson, 490 U.S. at 352-53 (describing duty of federal agencies to discuss mitigation measures when implementation is local).

4 Other examples are water and sewer pipelines, new water or sewer treatment plants, deepening a navigation channel, and building or expanding a new inland or water-based cargo port, if there is federal funding, a federal permit, or some other federal link.

5 Owen Schmidt criticizes this distinction. He argues that all consequences are direct, though those further down the chain could be called indirect. He believes that dividing consequences into categories is a waste of time and effort. SAYING WHAT WE MEAN: DIRECT, INDIRECT, AND CUMULATIVE, NAEP NATIONAL E-NEWS 2 (Nov.-Dec. 2012). This criticism has merit, but it makes sense to consider growth-induced land development as a separate category even though its labeling as indirect may be confusing.

6 40 C.F.R. §1508.8(a) (2012).

7 40 C.F.R. §1508.8(b). Changes in the environment can also be indirect effects. One report distinguishes induced growth from encroachment-alteration indirect effects, which are “physical, chemical, or biological changes in the environment that occur as a result of the project but are removed in time or distance from the direct effects.” An example is the decline of a particular species as a result of habitat fragmentation caused by a project. This Article does not discuss this type of indirect effect. ASSESSING INDIRECT EFFECTS AND CUMULATIVE IMPACTS UNDER NEPA 2 [AASHTO Practitioner’s Handbook, 2008], available at http://environment.transportation.org/pdf/programs/practitioners_handbook_12.pdf (hereinafter ASSESSING INDIRECT EFFECTS).

8 The regulation states that “[i]ndirect effects may include growth inducing effects and other effects related to the induced changes in the pattern of use, population density or growth rates.” 40 C.F.R. §1508.8(b) (2012).

9 NEPA authorizes the assumption of NEPA compliance responsibilities by state transportation agencies. 42 U.S.C. §4332(2)(D) (2006 & Supp. 2012). Assumption by state is also available under the federal-aid highway act. 23 U.S.C. §327 (2006 & Supp. 2012).

10 An agency must decide what type of growth-induced land development will occur if a decision is made that it will occur. Agencies have several forecasting methods available to make this decision, including the of planning judgment, collaborative judgment using a Delphi Panel, elasticities that relate change in highway capacity to change in travel behavior and land use effects, allocation models, four-step travel demand models, and integrated transportation-land use models. See URI AVIN ET AL., FORECASTING INDIRECT LAND USE EFFECTS OF TRANSPORTATION PROJECTS ch.4 (National Cooperative Highway Research Program, Project 25-25, Task 22, Transportation Research Bd., 2007), available at http://onlinepubs.trb.org/onlinepubs/archives/NotesDocs/25-25%2822%29_FR.pdf. A Delphi Panel is a panel of selected experts who provide their assessment of likely future outcomes by responding to several rounds of questions. *Id.* at 62.



Growth-Induced Land Development *Continued from page 5*

Part III reviews the case law that considers when agencies must discuss growth-induced land development as an indirect effect. The cases have paid limited attention to the causation and foreseeability requirements of the CEQ regulation, and agencies did not use a prescreening process in any of the decided cases. However, the courts used criteria to decide when growth-induced land development would occur that are consistent with those suggested in the highway project reports, though more limited in scope. The conclusion recommends that courts improve their review of agency decisions when asked to decide whether growth-induced land development could occur.

I. Legal Requirements for Considering Indirect Effects

A. Causation

As noted earlier, the CEQ regulation states that “[a]n indirect effect is ‘caused by the action and [is] later in time or farther removed in distance, but...still reasonably foreseeable.’”¹¹ Causation has been a requirement in NEPA law since an early Supreme Court case, *Metropolitan Edison Co. v. People Against Nuclear Energy (PANE)*.¹² The U.S. Nuclear Regulatory Agency authorized the restart of a nuclear reactor on a site where another had failed. The Court held the severe psychological health damage suffered by nearby residents because the reactor that was restarted was not an environmental effect covered by NEPA. Congressional intent suggest the terms “environmental effect and impact” must “be read to include a requirement of a reasonably close causal relationship between a changed in the physical environment and the effect at issue.”¹³ The Court added that “[t]his requirement is like the familiar doctrine of proximate cause from tort law.”¹⁴

*Department of Transportation v. Public Citizen*¹⁵ reaffirmed *PANE*. It held that a federal agency’s EA did not have to consider the environmental impact of admitting Mexican trucks to the United States because the president, not the agency, had the authority to authorize admission. The agency did not have the authority to refuse admission if the trucks met statutory safety and financial requirements. The Court rejected a “particularly unyielding variation of ‘but for’ causation, where an agency’s action is considered a cause of an environmental effect even when the agency has no authority to prevent the effect.”¹⁶ It again turned to tort law, approvingly referenced a leading torts treatise,¹⁷ and added that “[w]e hold that where an agency has no ability to prevent a certain effect due to its limited statutory

authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect.”¹⁸

Public Citizen’s causation rule does not prevent consideration of indirect effects. Unlike the agency in *Public Citizen*, agencies that do NEPA reviews have the authority to control their review and must discuss any foreseeable indirect effects they discover. A highway project, for example, can be the “legally relevant cause” of growth-induced land development under the Supreme Court’s proximate cause theory, because the improved accessibility a highway project creates can make development foreseeable in affected areas.

One problem is that private developers and state and local governments make land development happen, not the government agency responsible for the project. This need for third party intervention could possibly create an intervening cause defense based on proximate cause theory. Growth-induced land development would not be an indirect effect of a project because intervening third parties, not the responsible government agency, authorize and carry out new development.

This argument fails under an exception to the intervening cause rule, that third-party intervention is not an intervening cause if it is foreseeable consequence of negligent conduct. As the *Restatement of Torts* explains, an intervening cause is not a defense to liability if “the negligent conduct of the actor creates or increases the foreseeable risk of harm through the intervention of another force.”¹⁹ As applied to the indirect effect problem,

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- 11 40 C.F.R. §1508.8(b) (2012). See generally MANDELKER, *supra* note 3, at §8:38.
- 12 460 U.S. 766, 13 ELR 20515 (1983). See MANDELKER, *supra* note 3, at §8:38.
- 13 460 U.S. 774.
- 14 *Id.* The Court added, “courts must look to the underlying policies or legislative intent in order to draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not.”
- 15 541 U.S. 752, 34 ELR 20033 (2004).
- 16 *Id.* at 767. It added that “a ‘but for’ causal relationship is insufficient to make an agency responsible for a particular effect under NEPA and the relevant regulations.”
- 17 W. PAGE KEETON ET AL., PROSSER AND KEETON ON LAW OF TORTS 264, 274-75 (5th ed. 1984).
- 18 541 U.S. 770.
- 19 RESTATEMENT (SECOND) OF TORTS §442A. This rule is consistent with the statement of the law in KEETON ET AL., at 303. “If the intervening cause is one which in ordinary human experience is reasonably to be anticipated, or one which the defendant has reason to anticipate under the particular circumstances, the defendant may be negligent.”



Growth-Induced Land Development *Continued from page 6*

this exception means third-party intervention is not an intervening cause if a project, such as a highway, creates a foreseeable possibility that growth-induced land development could occur.

Courts rejected the intervening cause argument in cases where they considered it, though they did not use intervening cause terminology. The U.S. Court of Appeals for the Ninth Circuit, for example, held that an agency had to consider growth-induced development caused by a highway interchange, and rejected an argument it did not have to consider this development because it resulted from local and private, not federal, action.²⁰ The main purpose and only credible economic justification of the interchange, the court held, was to provide access for future industrial development. “This argument that the principal object of a federal project does not result from federal action contains its own refutation.”²¹

B. Foreseeability

The CEQ regulation states that growth-induced land development must be “reasonably foreseeable” to be an indirect effect. Foreseeability is a requirement through-out NEPA, because NEPA should not require an agency to consider speculative and remote effects.²² Foreseeability also is an ambiguous term. CEQ provided guidance on the meaning of this term as it applies to indirect effects when it published a list of 40 questions and answers about NEPA in the *Federal Register* at the end of the Carter Administration. One question asked: “How should uncertainties about indirect effects of a proposal be addressed, for example, in cases of disposal of federal lands, when the identity or plans of future landowners are unknown?”²³ CEQ explained that “total uncertainty” does not require speculation, but that an agency may not ignore “uncertain, but probable, effects of its decision.”²⁴ It must make a good-faith effort. CEQ’s response is re-

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20 *City of Davis v. Coleman*, 521 F.2d 661, 677, 5 ELR 20633 (9th Cir. 1975). *Accord Mullins v. Skinner*, 756 F. Supp. 904, 921 (E.D.N.C. 1990) (rejecting argument that significant changes in development patterns can only be brought about by zoning changes, not by construction of high-rise bridge to barrier island; argument “so utterly devoid of common sense and inconsistent with NEPA that it cannot be taken seriously,” as zoning changes inevitably follow development pressures, and “court did not need plaintiffs’ experts to tell it that zoning changes inevitably follow development pressures. To believe otherwise is to ignore reality.”; argument ignores definition of indirect effect in CEQ regulations; “Even though zoning changes may be necessary to alter existing use of land, if a major federal action makes it likely that such changes will occur, the action will have an indirect effect on the environment,” citing *Davis*).

21 A federal district court adopted a contrary analysis, again without using intervening clause terminology. *Center for Biological Diversity v. United States Dep’t of Hous. & Urban Dev.*, 541 F. Supp. 2d 1091 (D. Ariz. 2008), *aff’d*, 359 Fed. Appx. 781 (9th Cir. 2009). Federal agencies provided mortgage insurance, loan guarantees, and loans for residential and commercial development, which had negative environmental effects on a water table. The court found that federal loans, guarantees, and insurance were too attenuated to qualify as actions that significantly affected the environment. Federal agencies did not control where their financial assistance was used. “Local developers and planners are responsible for the number of physical structures that may have an actual effect on the watertable.” *Id.* at 1101. The court did not cite *Public Citizen*. This case is an incorrect reading of the intervening cause rule. Land development financed by assistance from the federal agencies was arguably foreseeable under the *Restatement’s* exception to the rule. *See also Sierra Club v. Clinton*, 746 F. Supp. 2d 1025 (D. Minn. 2010) (insufficient causal relationship between proposed pipeline and development of Canadian oil sands, *Public Citizen* cited).

22 *E.g.*, 40 C.F.R. §1598.25(c) (2012) (must consider “reasonable foreseeable future actions” as cumulative impacts); §1502.22(b) (must obtain incomplete or unavailable information if “relevant to reasonably foreseeable significant impacts [and it] is essential to a reasoned choice among alternatives and the overall costs of doing so are not exorbitant”). *See, e.g. Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520 (8th Cir. 2003) (applying incomplete information rule, must consider decline in air quality from greater availability of low-sulfur coal through rail line for power generation); *Village of Grand View v. Skinner*, 947 F.2d 651, 22 ELR 20120 (2d Cir. 1991) (improved interchange design along with “reasonable foreseeable” developments in highway corridor will not ultimately require second span of bridge as cumulative impact).

23 Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, Question 18, 46 Fed. Reg. 18026, 18031 (1981). *See Western Land Exch. Project v. United States Bureau of Land Mgmt.*, 315 F. Supp. 2d 1068 (D. Nev. 2004) (sale of federal land under federal act; impacts actually intended; aggressive development of land assumed and purpose of project was to accommodate orderly expansion of a city).

24 A distinction between probability and certainty is made in CALTRANS, GUIDANCE FOR PREPARERS OF GROWTH-RELATED, INDIRECT IMPACT ANALYSES 5-4 (2012), *available at* http://www.dot.ca.gov/ser/Growth-related_IndirectImpactAnalysis/GRI_guidance-06May_files/gri_guidance.pdf. The Guidance distinguishes between the probability of a prediction and its reliability. Both are needed, and a practitioner must be sure of the reliability of her data sources. Some of the data sources that help decide whether growth-induced development will occur have reliability problems, such as land use policies in comprehensive plans. A CEQ regulation deals with the problem of uncertainty in impact statements. 40 C.F.R. §1502.22 (2012).



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produced in the footnote.²⁵ For its federal land disposal example, it suggested consideration of development trends in the area, or the likelihood that the land would be used for a project, recommendations that can apply to growth-induced land development.

The CEQ regulation does not define “reasonably foreseeable,” but court decisions have. *Sierra Club v. Marsh (II)*²⁶ is a leading case. The U.S. Court of Appeals for the First Circuit held that the construction of a seaport in Maine would attract light-dry industries as an indirect effect. It held that “the terms ‘likely’ and ‘foreseeable,’ as applied to a type of environmental impact, are properly interpreted as meaning that the impact is sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.”²⁷ The court listed several factors courts should consider when applying its “ordinary prudence” test,²⁸ but they do not apply to growth-induced land development. Sierra Club’s reasonably foreseeable test, and the Supreme Court’s proximate cause rule, are not always cited by the courts in the growth-induced land development cases.

II. How to Decide When a Highway or Other Project Could Cause Growth-Induced Land Development

For each project that comes under NEPA review, an agency must decide whether growth-induced land development is foreseeable as an indirect effect.²⁹ This decision may be made in an EA that decides whether a project is environmentally significant, or in an EIS that discusses significant environmental effects and their mitigation. If an agency decides that growth-induced land development could occur, it must discuss its significant environmental effects and their mitigation.

Agencies must have a process and criteria for deciding when growth-induced land development could occur as an indirect effect, but there is no established practice. State transportation departments or private consultants, often with federal funding, have prepared a number of reports³⁰ on indirect effects

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25 The EIS must identify all the indirect effects that are known, and make a good-faith effort to explain the effects that are not known but are “reasonably foreseeable.” 40 C.F.R. §1508.8(b). In the example, if there is total uncertainty about the identity of future landowners or the nature of future land uses, then, of course, the agency is not required to engage in speculation or contemplation about future plans. But, in the ordinary course of business, people do make judgments based upon reasonably foreseeable occurrences. It will often be possible to consider the likely purchasers and the development trends in that area or similar areas in recent years; or the likelihood that the land will be used for an energy project, shopping center, subdivision, farm, or factory. The agency has the responsibility to make an informed judgment, and to estimate future impacts on that basis, especially if trends are ascertainable or potential purchasers have made themselves known. The agency cannot ignore these uncertain, but probable, effects of its decisions.

26 976 F.2d 763, 23 ELR 20321 (1st Cir. 1992).

27 *Id.* at 767. The court interpreted the term “likely” as equivalent to “foreseeable” or “reasonable foreseeable.” It added that “a likelihood of occurrence, which gives to the duty, is determined from the perspective of the person of ordinary prudence in the position of the decisionmaker at the time the decision is made about what to include in the [EIS].” *Id.* Prof. Todd Aagaard has criticized the foreseeability test: “Despite its widespread adoption in the law, however, courts have found that operationalizing reasonable foreseeability is extremely difficult.” Todd S. Aagaard, *A Functional Approach to Risk and Uncertainties Under NEPA*, 1 MICH. J. ENVTL & ADMIN. L. 88,106-07 (2012). He calls the “reasonable person” standard “notoriously opaque.” *Id.* at 106.

28 These factors are:

With what confidence can one say that the impacts are likely to occur? Can one describe them “now” with sufficient specificity to make their consideration useful? If the decisionmaker does not take them into account “now,” will the decisionmaker be able to take account of them before the agency is so firmly committed to the project that further environmental knowledge, as a practical matter, will prove irrelevant to the government’s decision?

Id. at 768.

29 CEQ regulations provide three options for compliance with NEPA. It may not apply because a project is categorically excluded. 40 C.F.R. §1501.4 (2012) (agency may have procedures to determine whether a proposal does not require an EIS or EA). Categorical exclusions are defined in §15089.4 (category of actions that do not individually or cumulatively have a significant effect on human environment). An agency may do an EA to decide whether an EIS is required, which is a common choice, or it may do an EIS without doing an EA. §1508.9 (defining EA). A categorically excluded project should not require an analysis of indirect effects. A review of indirect effects should be part of an EA or EIS.

30 For discussion of these reports, see AVIN ET AL., *supra* note 10, at 14-21.



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to meet this need for highways.³¹ This section reviews these reports.³² Though they were prepared for highways, many of their recommendations can apply to other projects. The difference is that other projects may not bring improved accessibility, which is a major reason why highways could cause growth-induced land development.³³

Identifying growth-induced land development as an indirect effect of highway projects is complicated.³⁴ As one report noted, “[t]here is good evidence that the ‘leading’ role of highway improvements has diminished as interstates have been completed, urban areas have matured, and urban road networks have come to serve all parts of metropolitan areas.”³⁵ They may now have less of an impact on land use in mature areas, and indirect effects may be smaller.³⁶ Agencies may have difficulty deciding whether land use changes are responding to the highway network, or whether transportation improvements are only responding to development and settlement patterns.³⁷

A report authorized by a presidential Executive Order found an immature practice in the review of indirect effect, with considerable variability in detail level. A majority of environmental reports treated indirect effects in a cursory fashion.³⁸ Another report found conflicts between the transportation agencies that carry out the projects and the resource agencies that comment on them. Resource agencies defined indirect effects broadly in order to protect resources, while transportation agencies defined indirect effects narrowly because they believe a broad definition would be harmful to the project. The relative strength or power of an agency as compared to other agencies may decide how broadly indirect effects are considered.³⁹

As a specific guideline, the report suggest agencies should analyze indirect effects if a highway project is planned for a specific development,⁴⁰ or “[i]f a project’s justification depends in whole or part on marketing induced growth or other project-generated benefits to the area,” such as access to a major activ-

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31 Some of these reports also cover cumulative effects, which raise similar problems. A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R. §1508.7 (2012). A typical example is a similar action in the same area as the proposed action. *E.g.*, *Grand Canyon Trust v. FAA*, 290 F.3d 339, 32 ELR 20677 (D.C. Cir. 2002) (agency planning replacement airport must consider noise effects on national park from other flights in area in addition to those from replacement airport). See also FEDERAL HIGHWAY ADMINISTRATION (FHWA), QUESTIONS AND ANSWERS REGARDING THE CONSIDERATION OF INDIRECT AND CUMULATIVE IMPACTS IN THE NEPA Process 3 (2003), available at <http://www.environment.fhwa.dot.gov/projdev/qaimpact.asp> (explaining that a cumulative effect “includes the total effect on a natural resource, ecosystem, or human community due to past, present, and future activities or actions of Federal, non-Federal, public, and private entities”). Cumulative effects present issues distinct from indirect effects, but there can be overlap. For a report discussing both, see ASSESSING INDIRECT EFFECTS, *supra* note 7.

32 They do not usually discuss the legal criteria that apply to the consideration of indirect effects. But see THE LOUIS BERGER GROUP, LEGAL SUFFICIENCY CRITERIA FOR ADEQUATE INDIRECT EFFECTS AND CUMULATIVE IMPACT ANALYSIS AS RELATED TO NEPA DOCUMENTS (AASHTO, 2008), available at http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP25-25%2843%29_FR.pdf.

33 AVIN ET AL., *supra* note 10, at 12.

34 For discussion of the link between highways and land development, see Terry Moore et al., *The Transportation/Land Use Connection*, American Planning Ass’n, Planning Advisory Serv. Rep. No. 646/547 (2007); PARSONS BRINKERHOFF QUADE & DOUGLAS, INC., LAND

USE IMPACTS OF TRANSPORTATION: A GUIDEBOOK 12-18 (National Cooperative Highway Research Program, Report No. 423A, Transportation Research Bd., 1999), Eric Damian Kelly, *The Transportation Land-Use Link*, J. PLAN. LIT. 128 (1994).

35 ECONORTHWEST & PORTLAND STATE UNIV., A GUIDEBOOK FOR EVALUATING THE INDIRECT LAND USE AND GROWTH IMPACTS OF HIGHWAYS IMPROVEMENTS 6 (Final Report SPR Project 327 for Oregon Department of Transportation & Federal Highway Administration, 2001), available at http://www.oregon.gov/odot/td/tp_res/docs/reports/aguidebookforusingindirland.pdf.

36 *Id.* at 5-6.

37 *Id.* at 5.

38 Indirect and Cumulative Impacts Work Group, Executive Order No. 13274: Indirect and Cumulative Impacts Work Group Draft Baseline Report 23 (U.S. Department of Transportation, 2005) [hereinafter Baseline Report].

39 Louis Berger & Associates, *Guidance for Estimating the Indirect Effects of Proposed Transportation Projects* 52 (National Cooperative Highway Research Program, Report No. 403, Transportation Research Bd., 1998) [hereinafter *Guidance for Estimating*]. “The broadness or narrowness which indirect effects are identified has been determined in certain cases by the relative strength or power of one agency compared with others, and by the stance of the federal agencies involved.”

40 *Id.* at 79; FHWA, *supra* note 31, at 5 (“purpose and need of a proposed project that includes a development or economic element might establish and indirect relationship to potential land use change or other action with subsequent environmental impacts”).



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ity center.⁴¹ Advice varies when this purpose or linkage is not present. One report suggest growth-induced land development occurs when new transportation capacity provides a new access point, serves a geographic area in which growth conditions are present, or increases accessibility by reducing travel times.⁴² Another adds that “spatial effect is primarily a function of project type and maturity of the regional transportation system and land development,” and that greater effects are associated with new facilities as compared with the expansion of existing facilities.⁴³

The link between a highway project and growth-induced land development can be tenuous, as a complex interplay of public and private intervening factors may be necessary before development can occur.⁴⁴ Transportation is not the only variable. Other variables, such as “market demand, site suitability, capital availability, market feasibility, and regulatory controls,” can play a significant role in development decisions, and agencies must consider them.⁴⁵ So can “location attractiveness, consumer preference, the existence of other infrastructure, local political

and economic conditions, and the rate and path of urbanization in the region.”⁴⁶ The impact of a new highway on future must be balanced against the expected market response.

Local comprehensive plans are an important factor, as a plan may consider the effect of a proposed highway project on future growth.⁴⁷ An agency could then rely on the plan to satisfy its duty to consider growth-induced land development. Plans have limitations, however. One problem is that agencies should consult plan with caution. They seldom make assumptions about future transportation improvements in their land use policies,⁴⁸ so may not consider the effect of a highway improvement on future growth. Neither may a plan be reliable, as reliability depends on the age of the plan, the geographic area covered, who was involved in its preparations, and the degree of importance attached to planning goals by public and decisionmaking bodies.⁴⁹ Even when a plan considers the potential for future development, a highway project may modify the plan’s assumptions by accelerating development or spatially dictating where it could occur.⁵⁰

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41 For discussion of this issue, see GUIDANCE FOR ASSESSING INDIRECT AND CUMULATIVE IMPACTS OF TRANSPORTATION PROJECT IN NORTH CAROLINA, VOLUME I: GUIDANCE POLICY REPORT III-8 (North Carolina Department of Transportation/Department of Environment and Natural Resources, 2001), available at <http://connect.ncdot.gov/resources/Environmental/Compliance%20Guides%20and%20Procedures/Volume%2001%20Assessment%20Guidance%20Policy%20Report.pdf> [hereinafter GUIDANCE FOR ASSESSING]. “Economic development (from induced growth) is often cited as justification for proposed transportation projects. Indeed, certain programs, e.g., ‘development highways,’ are authorized by legislation with economic development as their intent.” See also DESK REFERENCE, *supra* note 3, at 30 (must consider indirect effects when proposed transportation improvements planned to support area’s economic development goals); FHwA, *supra* note 31, at 5 (must consider growth-induced land development if purpose and need includes economic or development element).

42 ASSESSING INDIRECT EFFECTS, *supra* note 7 at 7 (indirect effects analysis less likely if these effects not present). See also FHwA, *supra* note 31 at 5 (new alignment or access); CALTRANS, *supra* note 24, at 5-4 (discussing accessibility factor in deciding whether indirect effects of project must be analyzed). See also STEVEN LANDAU ET AL., LONG-TERM ECONOMIC DEVELOPMENT IMPACTS OF HIGHWAY PROJECTS: FINDINGS FROM A NATIONAL DATABASE OF PRE/POST CASE STUDIES 7 (2011), available at <http://edgroup.com/attachments/article/372/Local-Economic-Impacts-of-Highway-Projects.pdf> (about 54% of projects in rural areas were for tourism, and about 22% of projects in metro/mixed areas were for also for tourism, while other projects were proposed for site access).

43 DESK REFERENCE, *supra* note 3, at 29. It is also possible that radial facilities may have more land use effect than circumferential ones.

44 Megan Stanley, Indirect and Cumulative Impact Analysis 22 (NCHRP Project 25-25, Task 11, 2006), available at http://onlinepubs.trb.org/onlinepubs/archive/NotesDocs/25-25%2811%29_FR.pdf. See also AVIN ET AL., *supra* note 10, at 30, noting that it is important to net out the negative effects that other sources of induced travel may have on accessibility, such as mode shifts and peak contractions.

45 Stanley, *supra* note 44, at 22. See Trout Unlimited v. Morton, 509 F.2d 1276, 5 ELR 20151 (9th Cir. 1974) (second home development a remote possibility of dam and reservoir project; surrounding area a highly developed agricultural area with only a few small towns).

46 GUIDANCE FOR ASSESSING, *supra* note 41, at III-28. See also DESK REFERENCE, *supra* note 3, at 58-59.

47 AVIN ET AL., *supra* note 10, at 61.

48 *Id.*

49 GUIDANCE FOR ASSESSING, *supra* note 41, at III-10.

50 Baseline Report, *supra* note 38, at 22. See also ASSESSING INDIRECT EFFECTS, *supra* note 7, at 7 (through comprehensive plan has growth policy, project can be necessary condition for planned growth, as when new interchange is constructed to serve master-planned development).



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Deciding whether this complex interplay of factors could produce growth-induced land development requires a prescreening process, and the adoption of criteria for making this decision.⁵¹ Advice on acceptable criteria varies,⁵² but the choice of a prescreening process and criteria is up to the agency, and courts usually defer to an agency's choice of methodology.⁵³ A decision matrix⁵⁴ included in an Oregon report provides a helpful option.⁵⁵ It lists the factors that can cause land use changes, such as a change in accessibility provided by a highway, the influence of market supply and demand, and other factors that affect development.⁵⁶ The matrix includes data sources for evaluating these factors; a value assignment for each factor at increasing value levels, e.g., improvements in accessibility in increasing minutes; and estimates of the probability for change for each factor based on its strength. It seems to assume a process that balances the

influence of each factor on the probability that growth-induced development might occur. Each factor apparently has equal weight, though a weak showing on accessibility would be an important negative result.⁵⁷ A balancing process is appropriate for a decision-making process in which decision makers must weigh and balance a number of interacting concerns.⁵⁸

An agency must select an appropriate study area within which the prescreening study is carried out.⁵⁹ There is no consensus on how to make this decision. The FHWA suggests, "an acceptable general guideline for determining the area of influence is the geographic extent to which a project will affect traffic levels."⁶⁰ Another report suggests consideration of political and geographic boundaries, commute shed, growth boundaries, watershed and habitat boundaries, and interviews and public involvement.⁶¹ A time frame for the prescreening study must

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51 AVIN ET AL., *supra* note 10, at 59, points out that predicting a potential for land use change in a study area is necessarily subjective, but argues that making this assessment is necessary. Analysis may be needed before a facility is built in anticipation of its added accessibility. The division between a prescreening phase, and a forecasting phase in which the magnitude and character of indirect effects is forecast, is not always sharp, however. Indirect effects may not be detected in prescreening, but becomes apparent later in the forecasting stage. E-mail from Uri Avin to the author, Mar. 27, 2013.

52 See, e.g. CALTRANS, *supra* note 24, at 5-2 to 5-4 (accessibility, project type, project location, and growth pressures in the area); AVIN ET AL., *supra* note 10, at 32 (change in accessibility, the market strength of the study area, and development-related policies such as current plans and zoning and key utilities availability).

53 MANDELKER *supra* note 3, at §10:45.

54 For a discussion of the matrix method, see MANDELKER, *supra* note 3, at §10:4.

55 ECO Northwest, at 35, as explained in AVIN ET AL., *supra* note 10, at 57-59. For additional guidance on this issue, see Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina, Volume II: Practitioner's Handbook, Section II: Prescreening Projects for Applying Indirect/Cumulative Impact Assessment (North Carolina Department of Transportation/Department of Environment and Natural Resources, 2001), available at <http://connect.ncdot.gov/resources/Environmental/Compliance%20Guides%20and%20Procedures/Prescreening%20Projects%20for%20Applying%20Impact%20Assessments.pdf> [hereinafter Prescreening], which provides detailed guidance on the prescreening process. It recommends a decision tree that considers the function of the facility; changes in accessibility, population, and employment trends; and the rate and path of urbanization. It also includes a matrix that provides a number of guidelines for deciding when an analysis of indirect effects is required. *Id.* at 10.

56 The other factors included in the matrix are change in property value; forecasted growth; availability of non-transportation services; and other

factors that impact the market for development, such as local planning documents and interviews with developers and brokers; and public policy.

57 "If all other measures are 'strong' and the accessibility measure is 'weak,' the indirect land-use impacts are likely to be less." Table 3 note, AVIN ET AL., *supra* note 10, at 60.

58 But see Susan Reynolds, *The Judicial Role in Intergovernmental Land Use Disputes: The Case Against Balancing*, 71 MINN. L. REV. 611 (1987) (criticizing the use of a balancing test to decide priorities in intergovernmental zoning conflicts). Prof. Susan Reynolds argues that the balancing test "discourages compromise and increases litigation, involves the court in the original land use decision, does not sufficiently protect the host government and is an inadequate rule because '[i]t is not for courts...to pick and choose between valid public purposes.'" *Id.* at 641.

59 Agencies must also select a study area within which they decide to do and analysis of cumulative effects, and there is substantial case law on this problem. MANDELKER, *supra* note 3, at §10:42.1.

60 FHWA, *supra* note 31, at 9. See also GUIDANCE FOR ASSESSING, *supra* note 41, at III-8 (limits may be defined by the area over which the project could influence travel costs or travel patterns); ECONORTH-WEST, *supra* note 35, at 17 (study area is function of travel time and miles, usually one-half mile around improvement); Baseline Report, *supra* note 38, at 26 (transportation officials take a narrow view, resource agencies take a broad view on this issue); Elise M. Bright, *Secondary Impacts of Airports: An Assessment of Planning Procedures*, 36 TRANSP. Q. 75, 75-76 (1982) ("A definition based solely on noise contours or jurisdictional boundaries is usually inadequate because it does not include areas impacted by such factors as ground transportation and land use changes"; six rules for defining boundaries suggested).

61 DESK REFERENCE, *supra* note 3, at 32-35 (and can combine study area tools). See also CALTRANS, *supra* note 24, at 5-8 (political boundaries, commute shed, and growth boundaries); Guidance for Estimating, *supra* note 39, at 53 (consistent agreement that delineation of spatial boundaries be situation-specific, and consider resources such as geographic, topographic, and settlement patterns; arbitrary defined radius discouraged).



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also be selected. Here, there also is considerable variation and no accepted guideline, with one study noting that five to 10 years is often chosen.⁶² There is no clear consensus on how to decide when a highway can cause growth-induced land development, but the factors that influence its occurrence are reasonably clear, and there is helpful guidance on the role of comprehensive plans. The decision matrix suggested in the Oregon report can provide a basis for a prescreening process, and adapted for use in other projects where accessibility is not a factor. Choice of a study area and time frame can be problematic, but these issues did not appear in the court decisions.

III. Court Decision on Growth-Induced Land Development as an Indirect Effect

This section reviews court decisions that considered whether highway and other projects could cause growth-induced land development.⁶³ The cases take a very limited view of this problem. In none of them did an agency carry out a prescreening process, though courts often applied factors the highway reports identified as indicating whether growth-induced land development could occur. Courts usually considered only one of these factors, however,

and based their decisions on clear indicators that growth-induced land development would or would not happen.⁶⁴

A. Government and Private Projects Other Than Highway Projects

One set of cases considered public projects that were not highway projects. Airport improvements funded by the Federal Aviation Agency (FAA),⁶⁵ such as new runways, are an example. The cases also considered private projects that required a government permit.

Courts required a consideration of growth-induced land development only when it was the admitted purpose of a project or clearly expected to occur, as the highway reports recommended. In one case, major improvements to a regional airport were admittedly taken to stimulate regional growth by improving access to the region's tourist attractions.⁶⁶ In another, the U.S. Army Corps of Engineers (the Corps) issued a wetland fill permit⁶⁷ to a county for a biotechnology research park project that the county planned with a private institute.⁶⁸ The county secured economic stimulus funds, land rights, rezoning, and expedited permitting at the state level to establish the research park for the express purpose of expediting growth. Other cases

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62 Guidance for Estimating, *supra* note 39, at 53 (five to 50 years, five to 10 years frequently mentioned in interviews). See also DESK REFERENCE, *supra* note 3 at 34 (20-25 years).

63 A somewhat different problem is presented when a government agency is responsible for growth-induced land development after a highway or other project is built, because a government agency controls the development and can decide whether and when to proceed. Two U.S. Court of Appeals for the Fifth Circuit cases relied on "reasonable prudence" and proximate cause rules to hold that a government channel project would not cause the government to deepen the channel, *City of Shoreacres v. Waterworth*, 420 F.3d 440 (5th Cir. 2005), and that it was highly speculative that the establishment of a public wildlife refuge would prevent the construction of a public water reservoir that might avoid future water shortages. There was no commitment to constructing the reservoir. *City of Dallas v. Hall*, 562 F.3d 712, 39 ELR 20062 (5th Cir. 2009), *cert. denied sub nom.* *City of Dallas v. Gould*, 130 S. Ct. 1499 (2010). Both cases quoted language from *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 355, 19 ELR 20743 (1989) (upholding revision of CEQ's worst-case regulation), that "[r]easonable foreseeability" does not include "highly speculative harms" that "distort [] the decisionmaking process" by emphasizing consequences beyond those of "greatest concern to the public and of greatest relevance to the agency's decision." See, e.g., *City of Dallas*, at 719. See also *Airport Impact Relief, Inc. v. Wykle*, 192 F.3d 197, 30 ELR 20109 (1st Cir. 1999) (expansion of public airport because of road relocation contingent on several events that might or might not occur over an eight-year span, including acquisition of permits, arrangement of funding, drafting of expansion plans, and other contingencies; quoted reasonable foreseeability test); *Presidio Golf Club v. National Park Serv.*, 155 F.3d 1153, 29

ELR 20219 (9th Cir. 1998) (new clubhouse for golf course owned by National Park Service not expected to have competitive effect on existing clubhouse on golf course, citing *Sierra Club* and *PANE*).

64 Many of these cases were decided before *Sierra Club* and *Public Citizen*, and so did not apply the causation and foreseeability tests these cases adopted. Many also did not consider the causation and "reasonably foreseeable" requirements in the CEQ regulation.

65 Grants for airport improvements can be made by the Federal Aviation Agency (FAA) to airport authorities under the Airport Improvement Program. See Airport Improvement Program (AIP) Handbook – Order 5100.38C, available at http://www.faa.gov/airports/aip/sip_handbook/. FAA and local airport authorities do not control land development around airports that is not related to the protection of airspace. See Timothy R. Wyatt, *Balancing Airport Capacity Requirements With Environmental Concerns: Legal Challenges to Airport Expansion*, 76 J. AIR L. & COM. 733 (2011).

66 *State of California v. United States Dept. of Transp.*, 260 F. Supp. 2d 969 (N.D. Cal. 2003).

67 See 33 U.S.C. §1344 (2006).

68 *Florida Wildlife Fed'n v. United States Army Corps of Eng'rs*, 401 F. Supp. 2d 1298 (D. Fla. 2005) (*Public Citizen* distinguished because the Corps had discretion to prevent or manage indirect effects of its permit on the land at issue; record irrefutably showed development not intended to serve existing need, but as catalyst for growth). The website for this project is at <http://www.scripps.edu/florida/>



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required consideration of growth-induced land development in similar fact situations.⁶⁹

A number of cases decided this type of project would not cause growth-induced land development. Some held that it was not reasonably foreseeable as required by the CEQ regulation.⁷⁰ In a district court case, for example, a master plan for an extensive development in the project area was abandoned, and foreseeable

development was not a goal of the project.⁷¹ Cases held that improvements in airport operations, such as changes in flight patterns, did not cause growth-induced land development because they met only existing needs and demand.⁷³

Other cases relied on policies in local land use plans, and on the ability of federal, state, and local regulations to control future development, to hold that agencies did not have to

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69 *Sierra Club v. Marsh* (I), 769 F.2d 868, 15 ELR 20911 (1st Cir. 1985) (per Breyer, J.; must consider growth-inducing effects of port and causeway in Maine; development of industrial park obvious and precise; documents proved detailed descriptions of likely future development including plot plan of proposed industrial park); *Western Land Exch. Project v. United States Bureau of Land Mgt.*, 315 F. Supp. 2d 1068 (D. Nev. 2004) (sale of federal land under federal act; impacts actually intended; aggressive development of land assumed and purpose of project was to accommodate orderly expansion of a city); *Friends of the Earth, Inc. v. United States Army Corps of Eng'rs*, 109 F. Supp. 2d 30, 31 ELR 20075 (D.D.C. 2000) (dredge and fill permit, three new casinos on Mississippi coast; evidence in case, including statement by agency and developers, showed that "increased growth in the area is the only reasonable prediction of what will occur of the casinos are built"; Corps leadership acknowledged increased development possibility raised by other agencies; indirect impacts need only be reasonably foreseeable).

See also *South Fork Band Council of W. Shoshone v. United States Dept. of Interior*, 588 F.3d 718, 39 ELR 20276 (9th Cir. 2009) (air quality impacts associated with transport and off-site processing of five million tons of refractory ore are prime examples of indirect effects that NEPA requires be considered); *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520 (8th Cir. 2003) (must consider decline in air quality from greater availability of low-sulfur coal for power generation through rail line, noting CEQ regulation for considering environmental effects where information incomplete or unavailable), *analysis affirmed on appeal from remand sub nom.* *Mayo Found v. Surface Transp. Bd.*, 472 F.3d 545 (8th Cir. 2006). *See* *County of Josephine v. Watt*, 539 F. Supp. 696, 12 ELR 21079 (N.D. Cal. 1982) (designation of scenic rivers claimed to induce increase in timber production in another state because timber production would be reduced in state where rivers were located; case remanded for trial on this point).

70 *Pennsylvania Protect Our Water & Envtl. Res. v. Appalachian Reg'l Comm'n*, 574 F. Supp. 1203 (M.D. Pa. 1982) (housing development that might have been caused by construction of multi-season recreation area, civic arena, motor inn complex, and access road too remote and speculative; master plan for extensive project abandoned; foreseeable development not immediate goal of project), *aff'd without opinion*, *Borough of Moosic v. Appalachian Reg'l Comm'n*, 720 F.2d 659 (3d Cir. 1983). Some of these cases were decided under earlier CEQ guidelines before CEQ adopted its final 1978 NEPA regulations: *Trout Unlimited v. Morton*, 509 F.2d 1276, 5 ELR 20151 (9th Cir. 1974) (second home development a remote possibility of dam and reservoir project; surrounding area highly developed as agricultural area with only a few small towns); *Environmental Def. Fund, Inc. v. United States Corps of Eng'rs*, 492 F.2d 1123, 4 ELR 20329 (5th Cir. 1974) (lack of proof that

in-mitigation with significant adverse environmental effect might be induced by waterway); *Life of the Land v. Brinegar*, 485 F.2d 460, 3 ELR 20811 (9th Cir. 1973) (increase in tourism induced by new runway at Hawaii airport would not lead to increase in permanent population that would affect quality of life), cert. denied, 416 U.S. 961 (1974); *Coalition for Lower Beaufort County v. Alexander*, 434 F. Supp. 293, 7 ELR 20800 (D.D.C. 1977) (industrial development that might be induced by construction of pier held remote and speculative), *aff'd mem.*, 584 F.2d 558 (D.C. Cir. 1978). *See also* *Township of Parsippany-Troy Hills v. Costle*, 503 F. Supp. 314, 11 ELR 20344 (D.N.J. 1979), *aff'd mem.*, 639 F.2d 776 (3d Cir. 1980) (no significant impact when population growth of 12% induced by wastewater treatment plant was to be spread over five to seven years).

71 *Pennsylvania Protect Our Water & Envtl. Res. v. Appalachian Reg'l Comm'n*, 574 F. Supp. 1203 (M.D. Pa. 1982) (housing development that might have been caused by construction of a multi-season recreation area, civic arena, motor inn complex, and access road too remote and speculative).

72 Extensive guidance on growth-induced land development caused by airport projects is not available. *But see* Elise M. Bright, *Secondary Impacts of Airports: An Assessment of Planning Procedures*, 36 TRANSP. Q. 75 (1982) (discussing difficulty of defining airport-impacted areas; forecasting indirect effects an inexact science). For a case study of a land development plan for a regional airport that considered indirect effects, see *Guidance for Estimating*, supra note 39, at 175. For other guidance on the economic impact of airports that does not discuss indirect effects, see *Airport Economic Impact: Methods and Models* (Airport Cooperative Research Program Synthesis 7, Transportation Research Bd., 2008), available at http://onlinepubs.trb.org/onlinepubs/acrp_syn_007.pdf; Federal Aviation Admin., National Environmental Policy Act (NEPA) Instructions for Airport Projects, Order 50504B (2006), available at http://www.faa.gov/airports/resources/publications/orders/environmental_5050_4/.

73 *Morongo Band of Mission Indians v. Federal Aviation Admin.*, 161 F.3d 569, 29 ELR 20336 (9th Cir. 1998) (FAA proposed to move an existing airline arrival route into the Los Angeles International Airport for greater efficiency and safety); *Seattle Cmty. Council Fed'n v. Federal Aviation Admin.*, 961 F.2d 829 (9th Cir. 1992) (change in airport flight patterns). *See also* *County of Rockland v. Federal Aviation Admin.*, 335 Fed. Appx. 52 (D.C. Cir. 2009) (approving forecast of future traffic that did not consider growth-inducing effects of flight delay from airport redesign that increased throughput), cert. denied, 558 U.S. 1149 (2010). Compare *Barnes v. United States Dept. of Transp.*, 655 F.3d 1124, 41 ELR 20279 (9th Cir. 2011) (ground expansion by a new runway would cause development).



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consider growth-induced land development. In a case involving a new reservoir,⁷⁴ for example, the land use element of the local plan showed that most development would be around cities and major transportation corridors, not the reservoir. It was protected by a buffer, and any disturbance would require state permission, and any development affecting aquatic sites would require a federal permit.⁷⁵ The courts did not decide whether these plans and regulations were acceptable. The next section considers whether agencies can rely on local plans and regulations, and on a purpose to serve existing needs, to avoid considering growth-induced land development.

B. Highways

1. Growth-Induced Land Development Must Be Considered

In the highway cases, courts also required agencies to consider growth-induced land development when agencies admitted this was the project purpose, or when the nature of the project and the expected market response indicated it was obvious that growth would occur. *City of Davis v. Coleman*,⁷⁶ decided before CEQ adopted its final NEPA regulations, is a leading case that is still relevant.⁷⁷ The court implicitly used a balancing test, in which it considered the new accessibility provided by the project along with market and other factors that influenced whether growth would occur.

Transportation agencies planned a large interchange in an agricultural area near the city of Davis, California, and another

city on a major interstate highway; to provide permanent access to the highway. The area plan showed sites designated for industrial development adjacent to the highway, and promotion of these sites had started. A three-page agency finding concluded and EIS was not necessary.⁷⁸ It also admitted that the area was about to undergo rapid change to urban development because it was near a state university in Davis, and that the interchange would provide direct and safe access between the university and proposed industrial development. The court concluded that the interchange “is not being built to meet the existing demand for freeway access but to stimulate and service future industrial development in the Kidwell area which Solano County and the city of Dixon are now planning.”⁷⁹ It added that “[t]he growth-inducing effects of the Kidwell Interchange project are its *raison d’être*.”⁸⁰

The courts also considered the foreseeability problem. It held that the purpose of an impact statement is to “evaluate the possibilities in light of current and contemplated plans and to produce an informed estimate of the environmental consequences.”⁸¹ Foreseeing the unforeseeable is not required, but “an agency must use its best efforts to find out all that it reasonably can.”⁸²

Other cases held that agencies had to consider growth-induced land development caused by highway projects in similar circumstances. In these cases, there was either an admission that land development would occur, the nature of the project and the area in which it was built made it obvious it would occur, or the

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74 *Georgia River Network v. U.S. Army Corps of Eng’rs*, 334 F. Supp. 2d 1329 EA (N.D. Ga. 2003). *See also accord* *Georgia River Network v. United States Army Corps of Eng’rs*, 2012 U.S. Dist. LEXIS 37012 (S.D. Ga. Mar. 19, 2012) (fishing lake, local and federal regulation), *aff’d on other grounds*, 2013 U.S. App. LEXIS 7867 (11th Cir. Ga. Apr. 19, 2013); *Sierra Club v. Cavanaugh*, 447 F. Supp. 427, 8 ELR 20472 (D.S.D. 1978) (rural water system, local zoning).

75 The court was referring to the federal Clean Water Act, which requires a permit for “the discharge of dredge or fill material into the navigable water at specified disposal sites.” 33 U.S.C. §1344 (2006).

76 521 F.2d 661, 5 ELR 20633 (9th Cir. 1975).

77 The court also applied a “reasonableness” standard of judicial review that some courts used at that time. *Id.* at 672. The Supreme Court has since replaced it with a less rigorous “arbitrary and capricious” standard of judicial review, *MANDULKER*, *supra* note 3, at §8:6, but the use of reasonableness standard should not affect the relevance of the case.

78 This finding was made in a Negative Declaration, the equivalent at that time of an EA.

79 *City of Davis*, 521 F.2d 677.

80 *Id.* at 675. It also said that “with growth will come growth’s problems: increased population, increased traffic, increased pollution, and increased demand for services such as utilities, education, police and fire protection, and recreational facilities,” and that “it is obvious constructing a large interchange on a major interstate highway in an agricultural area where no connecting road currently exist will have a substantial impact on a number of environmental factors.” *Id.* at 674-75.

81 *Id.* at 676. The court added “[t]hat the exact type of development is not known is not an excuse for failing to file an impact statement at all.”

81 *Id.* at 676. The court added “[t]hat the exact type of development is not known is not an excuse for failing to file an impact statement at all.”

82 *Id.*



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encouragement of growth was the project purpose.⁸³ *Mullins v. Skinner*⁸⁴ illustrates these cases. The court held that the transportation agency had to consider the growth-inducing effects of a high-rise, fixed-span bridge to a barrier island off the North Carolina coast. Several experts testified that growth-inducing effects would occur, the agency conceded that growth in the area was the primary purpose of the project, and the court concluded a contrary conclusion could not be supported by human experience or any reasonable application of known social, scientific, developmental, and traffic engineering principles.⁸⁵

2. Growth-Induced Land Development Need Not Be Considered

A number of cases held that a highway project would not cause growth-induced land development. In some of these cases, additional new development was not dependent on the highway. Extensive testimony in a district court case, for example, showed

that development would occur because of market demand, not the highway. The “basic premise” of plaintiff’s argument, that access to transportation induces development, was debatable in the area.⁸⁶ In other cases, the court found that growth-induced land development would not occur because the area affected by the highway project was already developed or committed to development not contingent on the highway.⁸⁷ The project could not have any impact on land in the affected area. All these cases implicitly found a lack of the causation required by the CEQ regulation.

Cases also held that growth-induced land development did not have to be considered because the purpose of the project was only to serve existing development,⁸⁸ existing traffic and development needs, projected growth in traffic and development,⁸⁹ or to ease congestion.⁹⁰ An example is a case where the court found

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83 *Davis v. Mineta*, 302 F.3d 1104, 32 ELR 20727 (10th Cir. 2002) (interchange, expansion and extension of highway, bridge; EPA commented that “enhanced transportation facilities will generate or enhance economic activity and development”); *Coalition for Canyon Pres. v. Bowers*, 632 F.2d 774, 11 ELR 20053 (9th Cir. 1980) (reconstruction of 28-foot to 88-foot highway leading to Glacier National Park, impact of reconstructed highway on towns that rely on tourism not discussed, “likely that this project will have major effects on the character of these towns”); *Highway J Citizens Group v. United States Dep’t of Transp.*, 656 F. Supp. 2d 868 (E.D. Wis. 2009) (expansion of highway from two to four lanes appears to be an event that would contribute to growth in the region), *reconsideration denied*, 2010 U.S. Dist. LEXIS 27297 (E.D. Wis. Mar. 23, 2010); *Conservation Law Found v. Federal Highway Admin.*, 630 F. Supp. 2d 183 (D.N.H. 2007) (addition of four lanes to interstate highway each direction, agency was not free to ignore Delphi Panel’s forecast of induced growth); *North Carolina Alliance for Transp. Reform, Inc. v. United States Dep’t of Transp.*, 151 F. Supp. 2d 661 (M.D.N.C. 2001) (beltway with interchanges, growth-inducing potential admitted, denial of effect on future growth “contradicts common sense”); *Mullin v. Skinner*, 756 F. Supp. 904 (E.D.N.C. 1990) (as in *City of Davis*, obvious that construction of high-rise, fixed-span bridge to barrier island will bring development; rejected argument that it was the zoning that would bring development); *Joseph v. Adams*, 467 F. Supp. 141, 9 ELR 20468 (E.D. Mich. 1978) (extension of five-lane highway; as in *City of Davis*, encouragement of growth was the primary purpose of the highway); *Rankin v. Coleman*, 394 F. Supp. 647, 657, 5 ELR 20626 (E.D.N.C. 1975); (improvement of highway on barrier island would have secondary effect of increased development), modified on other grounds, 401 F. Supp. 664 (E.D.N.C. 1975); *Lathan v. Volpe*, 350 F. Supp. 262, 2 ELR 20545 (W.D. Wash. 1972) (failure to consider long-term effects of interstate highway on land use and population distribution in the metropolitan areas), *aff’d on this ground*, 4 ELR 20083 (9th Cir. 1973), *aff’d in part and vacated in part on other grounds*, *Lathan v. Brinegar*, 506 F.2d 677, 4 ELR 20802 (9th Cir. 1974), appeal on remand, *Adler v. Lewis*, 675 F.2d 1085, 12 ELR 20674 (9th Cir. 1982).

84 756 F. Supp. 904 (E.D.N.C. 1990).

85 *Id.* at 921.

86 *Florida Wildlife Fed’n v. Goldschmidt*, 506 F. Supp. 350, 13 ELR 20703 (S.D. Fla 1981) (interstate highway). *Accord Gloucester County Concerned Citizens v. Goldschmidt*, 533 F. Supp. 1222, 12 ELR 20721 (D.N.J. 1982) (four lane highway, secondary development would occur even though highway not built).

87 *Utahns for Better Transp. v. United States Dep’t of Transp.*, 305 F.3d 1152 (2002); *City of Carmel-by-the-Sea v. United States Dep’t of Transp.*, 123 F.3d 1142, 27 ELR 21428 (9th Cir. 1997); *Laguna Greenbelt v. United States Dep’t of Transp.*, 42 F.3d 517, 25 ELR 20349 (9th Cir. 1994) (toll road, though admission it would affect rate and pattern of growth); *Northwest Bypass Group v. United States Army Corps of Eng’rs*, 470 F. Supp. 2d 30, 37 ELR 20013 (D.N.H. 2007); *Piedmont Envtl. Council v. United States Dep’t of Transp.*, 159 F. Supp. 2d 260 (W.D. Va 2001) (and distinguishing *City of Davis* because termini of bypass located in already developed areas, and absence of interchanges between the two termini would likely not contribute to growth in less developed areas; highways only one factor affecting development plans), *aff’d & remanded on other grounds*, 58 Fed. Appx. 20 (4th Cir. 2003).

In other cases, the area affected by the highway was not available for development because it was not developable or was subject to restriction. *Northwest Bypass Group*, *supra* (affected area in wetlands or covered by conservation easement); *Piedmont Envtl. Council*, *supra* (affected area in state ownership or covered by conservation easements).

88 *City of Carmel-by-the-Sea*, 123 F.3d 1142.

89 *Wilds v. Slater*, 2000 U.S. Dist. LEXIS 20771 (D.S.C. Mar. 7, 2000) (growth expected to occur with or without completion of project).

90 *Northwest Bypass Group*, 470 F. Supp. 2d 30. *Accord Gloucester County Concerned Citizens*, 533 F. Supp. 1222 (highway would serve a specified area).



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that the purpose of a water reservoir was to keep up with the water demands of a county's increasing population.⁹¹ Projected population growth, the court held, was not attributable to the construction of the reservoir.

The courts accepted these purposes uncritically, and none considered the purpose and need statement for the project. A CEQ regulation requires a statement of purpose and need in EISs, and similar statement in EAs,⁹² to determine what alternatives an agency must consider.⁹³ If the purpose and need of a highway project is broadly stated to "improve transportation," for example, the agency must consider transportation alternatives in addition to highways. Courts do not accept purpose and need statements uncritically. They review them to see if they are drawn so narrowly that they present an adequate consideration of alternatives.⁹⁴ Assuming it is acceptable to rely on a purpose

and need statement to avoid consideration of growth-induced land development, courts should review these statements to see if purpose and need are correctly stated. They should also accept such statements as only one factor in deciding whether a highway could cause growth-induced land development.⁹⁵

The cases have held that it is acceptable for agencies to rely on local plans to satisfy NEPA requirements,⁹⁶ and the indirect effect cases are an example.⁹⁷ In a Ninth Circuit case, for example, the impact statement admitted growth-induced land development might result from a freeway, but the court held that it did not have to be considered because it was planned, accounted for, and analyzed in the local Carmel Valley Master Plan.⁹⁸ As noted earlier, however, plans have limits. They may not include assumptions about highway improvements and may not be reliable.⁹⁹ A highway project may also change the rate and pattern of development, as some courts admit.¹⁰⁰ Nevertheless,

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91 *Georgia River Network v. U.S. Army Corps of Eng'rs*, 334 F. Supp. 2d 1329 (N.D. Ga. 2003). See also *Town of Orangetown v. Gorsuch*, 718 F.2d 29, 14 ELR 20049 (2d Cir. 1983) (EPA regulation, sewerage plant built to serve existing need), *cert. denied sub nom.* *Town of Orangetown v. Ruckelshaus*, 465 U.S. 1099 (1984); *Hoosier Envtl. Council, Inc. v. United States Army Corps of Eng'rs*, 105 F. Supp. 2d 953, 30 ELR 20786 (S.D. Ind. 2000) (riverboat casino, purpose was to provide attractive resort destination, no evidence of proposed secondary commercial development in area); *Sierra Club v. Cavanaugh*, 447 F. Supp. 427, 8 ELR 20472 (D.S.D. 1978) (rural water system purposely limited in capacity to serve only present population and reasonably foreseeable growth needs of service area). See also *Pennsylvania Protect Our Water & Envtl. Res. v. Appalachian Reg'l Comm'n*, 574 F. Supp. 1203 (M.D. Pa. 1982), (foreseeable development not immediate goal of recreation project), *aff'd without opinion*, *Borough of Moosic v. Appalachian Regional Comm'n*, 720 F.2d 659 (3d Cir. 1983). *Hoosier Envtl. Council* contains an extensive discussion of the indirect effects problem.

92 40 C.F.R. §1502.13 (2012) ("The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."). A similar provision for EAs states that an EA "[s]hall include brief discussions of the need for the proposal." *Id.* at §1508.9(b). See MANDELKER, *supra* note 3, at §9:23.

93 See, e.g., *Habitat Educ. Ctr., Inc. v. United States Forest Serv.*, 593 F. Supp. 2d 1019, 1026-27 (E.D. Wis. 2009), *aff'd on other grounds*, 609 F.3s 897, 40 ELR 20145 (7th Cir. 2010).

94 MANDELKER, *supra* note 3, at §9:23.

95 As the Ninth Circuit stated in *Barnes v. United States Dep't of Transp.*, 655 F.3d 1124, 1139, 41 ELR 20279 (9th Cir. 2011), an analysis "which focuses inflexibly on the stated purpose of a project while ignoring its growth inducing effect – is completely inadequate for cases involving the construction of additional runways. For such case, a case-by-case approach is needed."

96 MANDELKER, *supra* note 3, at §10:40.1. See, e.g., *Sierra Club v. United States DOT*, 310 F. Supp. 2d 1168 (D. Nev. 2004) (FHWA could rely on forecasts and modeling efforts of a metropolitan planning organization responsible for developing area transportation plans and programs to justify population and traffic forecasts).

97 See, e.g., *Sierra Club North Star Chapter v. LaHood*, 693 F. Supp. 2d 958 (D. Minn. 2010) (four-lane bridge, upholding agency discussion of indirect effects in part because of reliance on local land use plans and planners).

98 *City of Carmel-by-the-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 27 ELR 21428 (9th Cir. 1997). See also *accord* *Citizens for Smart Growth v. Secretary of Dept. of Transp.*, 669 F.3d 1203, 42 ELR 20034 (11th Cir. 2012) (bridge; other commercial uses in study area already planned or developed); *Utahns for Better Transp. v. United States Dep't of Transp.*, 305 F.3d 1152 (2002) (parkway; consultation with local planners, though impact statement admitted that project would make development come sooner).

99 See *supra* notes 47-50 and accompany text. A section of the federal highway act integrates state and regional transportation planning with environmental reviews. 23 U.S.C. §168 (West Supp. 2013). The statute provides that "the Federal lead agency for a project may adopt and use a planning product in proceedings relating to any class action in the environmental review process of the project." *Id.* at §168(b)(1). A planning project is defined to include state or regional transportation plan. *Id.* at §168(a)(2). The statute details a process for integrating planning documents. *Id.* at §168(c). The statute authorizes the adoption of planning decisions and planning analyses, including an analysis of "local land use, growth management, and development." *Id.* at §168(c). These plans are prepared at the state and regional level, and must be approved by the federal agency.

100 *Laguna Greenbelt v. United States Dep't of Transp.*, 42 F.3d 517, 526, 2 ELR 20349 (9th Cir. 1994) (toll roads; impact statement "admits that the corridor may affect the rate, if not the amount and pattern, of growth in Orange County by permitting development to proceed more quickly").



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judicial acceptance of reliance on local plans in these cases was uncritical, though one district court held that an agency could not rely on a local plan whose approach to a highway project was self-serving opposition.¹⁰¹ CEQ regulations do not authorize federal agencies to rely on local plans to avoid a consideration of growth-induced land development. They require only a discussion of possible conflicts with any “land use plan, policies and controls for the area concerned,”¹⁰² and that agencies discuss and reconcile any inconsistencies with approved state or local plans or laws.¹⁰³

Agencies may also rely on local land use regulations as a reason for not considering growth-induced land development. A district court held that growth-induced land development possibly caused by a highway need not be considered because the county, by restricting utilities and enforcing land use regulations, could prevent unwanted commercial development and limit the amount and density of residential development.¹⁰⁴ The court did not consider the acceptability of these regulations.

Courts have given limited consideration to the role of land use regulations such as zoning, in NEPA compliance. An early district court case held that a U.S. Navy housing project that violated local zoning was not a threat to the environment. “NEPA may not be used by communities to shore up large lot and other exclusionary zoning devices that price out low and even middle income families.”¹⁰⁵ This case suggested that restrictive local controls should not allow agencies to refuse consideration of growth-induced land development. Otherwise, a municipality could prevent development in an area affected by a new highway with large lot zoning or some other restriction, and the agency could then claim growth-induced land development would not occur.

Other measures that affect NEPA compliance do not escape judicial review. For example, courts do not allow agencies to rely on mitigation measures, including local mitigation

measures, if they are inadequate.¹⁰⁶ Likewise, agencies should not be allowed to rely on unacceptable or inadequate state and local plans and controls to avoid discussing growth-induced land development. Judicial review of these plans and controls is necessary to avoid an unrestricted delegation of authority for NEPA compliance to nonfederal agencies. There is no authority for such delegation in the statute or regulations. Delegation, when it occurs, is done through specific legislative authority.

IV. Conclusion

A CEQ regulation provides a definition of indirect effects, and report recommendations suggest a prescreening process in which agencies decide when growth-induced land development could occur. Court decisions, however, have largely ignored the CEQ regulation, and agencies did not use a prescreening process in the cases the courts decided. Instead, the cases often relied on a single deciding factor as a clear indicator that growth-induced land development would or would not happen. These indicators are generally consistent with prescreening criteria recommended for highway projects, and with the definition of indirect effect in the CEQ regulation. Courts applied the foreseeability requirement of the CEQ regulation, for example, when they decided it was obvious that a project would cause growth-induced land development.

Courts should continue to insist that agencies consider growth-induced land development when there are clear indicators that it could occur, as when a statement of purpose includes it, and when circumstances indicate that development is obvious. A statement of purpose that a project is intended only to meet existing needs should not be an inflexible barrier to a discussion of growth-induced land development. For these and other cases where there are no clear indicators, courts should use a case-by-case balancing test based on a prescreening matrix to decide whether growth-induced land development could occur.

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101 Highway J Citizens Group v. United States Dep’t of Transp., 656 F. Supp. 2d 868 (E.D. Wis. 2009), *reconsideration denied*, 2010 U.S. Dist. LEXIS 27297 (E.D. Wis. Mar. 23, 2010).

102 40 C.F.R. §1502.16(c). The regulation does not allow agencies to reject state and local plans that are unacceptable or unreliable, but courts should have this authority.

103 *Id.* at §1506.2(d).

104 Piedmont Envtl. Council v. United States Dep’t of Transp., 159 F. Supp. 2d 260 (W.D. Va. 2001), *aff’d & remanded on other grounds*, 58 Fed. Appx. 20 (4th Cir. 2003).

105 Groton v. Laird, 353 F. Supp. 344, 350, 3 ELR 20316 (D. Conn. 1975). Compare Maryland-National Capital Park & Planning Com. v. United States Postal Service, 487 F.2d 1029, 3 ELR 20702 (D.C. Cir. 1973) (compliance with local zoning regulation is evidence that environmental effects project are not significant). See MANDELKER, *supra* note 3, at §8:55.

106 MANDELKER, *supra* note 3, at §10:44. See, e.g., Prince George’s County v. Holloway, 404 F. Supp. 1181, 6 ELR 20109 (D.D.C. 1975) (impact statement for relocation of military facility held inadequate because it did not discuss mitigation measures to alleviate housing shortage in area where facility would be located).



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A more difficult question is whether a court can order an agency to use a prescreening process and criteria. A court of appeals, in an indirect case, held that a court could not order an agency to use more sophisticated planning methods to determine environmental impacts, because the order was beyond NEPA's statutory requirements.¹⁰⁷ Agencies should be encouraged to use a prescreening process and criteria, however, to decide whether a project could cause growth-induced land development,¹⁰⁸ and courts usually accept a methodology and agency selects.¹⁰⁹

107 *South Louisiana Envtl. Council v. Sand*, 629 F.2d 1005, 1016-17 (5th Cir. 1980). The court noted that requiring procedures above and beyond what the statute requires was prohibited by two Supreme Court cases holding that NEPA does not impose substantive duties.

Courts can then review a decision made in this process to decide whether it was correct.

Growth-induced land development caused by highway and other projects is an important environmental effect. Despite accumulated experience under NEPA, however, agency procedures and criteria for considering such development, and judicial review of agency decisions that reject consideration of such development, are unsatisfactory. Agencies must improve their decision-making. Courts must develop meaningful standards for deciding when growth-induced land development is an indirect effect covered by NEPA.

108 CEQ should provide a guidance on this responsibility, as it has for other responsibilities agencies must assume under NEPA.

109 MANDELKER, *supra* note 3, at §10:45.

Lynton Keith Caldwell: An Environmental Visionary and the National Environmental Policy Act

By Wendy Read Wertz

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Editor's note: I heard Todd Taylor give a presentation on the sustainability initiative being practiced by the Darden Restaurant group and was fascinated with the obvious fact that an American corporation had made a business decision to become sustainable because it made sense both culturally and monetarily. There is a lot of lip service being payed to sustainability in many corners of the business world. Darden is definitely walking the talk. This article was originally published in the Restaurant Facility Management Association newsletter "Facilitator." I wish to thank them for providing permission to reprint this article.



Todd Taylor, Director of Design for Darden Restaurants. Todd is responsible for setting the design direction for new restaurant growth and renovation of all Darden brands. Darden is the world's largest full-service restaurant operating company with annual sales of more than \$8.5 billion. The company owns and operates more than 2,100 Red Lobster, Olive Garden, LongHorn Steakhouse, Bahama Breeze, Seasons 52, The Capital Grille, Eddie V's and Yard House restaurants in North America, employs more than 200,000 people and serves more than 425 million meals annually. In 2013, Darden was named to the FORTUNE "100 Best Companies to Work For" list for the third year in a row. Prior to joining Darden, Todd held leadership roles in restaurant design for several companies including Marriott Vacation Club International, The Ritz-Carlton Club, Walt Disney Imagineering and The Limited Brands. Todd holds a bachelor's of science degree from Dartmouth College and a master's degree in architecture and interior design from the University of Cincinnati College of Design, Architecture, Art, and Planning.



Sherleen Mahoney is the cofounder of Mighty Pen Media and a staff writer and editor for Facilitator magazine. Previously, she was the managing editor at 1105 Media. She has been writing and editing for trade publications in the environmental, healthcare, restaurant, security and technology industries for almost a decade.

Reprinted with permission by the Restaurant Facility Management Association (RFMA) for more information on RFMA, please go to RFMAonline.com. RFMA is the only organization created exclusively by and for restaurant facility professionals from major chain restaurants and franchisees. We are celebrating our 10th year of bringing industry peers together to network and share best practices, as well linking them to a wide range of vendors and service providers who can offer solutions to their everyday challenges.

Guided by a Corporate Conscience

Darden's "People, Planet & Plate" initiative embodies the company's culture and sustainability efforts

Sherleen Mahoney

People First

Darden credits its employees as the most important factor in its success. These employees are on the front lines, proudly representing the brand and serving more than 400 million meals a year. Darden understands that by valuing and developing its employees, they are creating an enthusiastic and motivated workforce. That's why Darden offers employees competitive pay and benefits, a credit union, a 401(k) match when Darden meets its financial targets and a discount on Darden stock.

In addition, there's a voluntary employee-funded assistance program called Darden Dimes. Thanks to employees donating at least 10 cents per paycheck, the program provides financial assistance to coworkers in need. The program helps employees who

experience severe financial hardships resulting from unexpected emergencies or catastrophic disasters, such as hurricanes, fires or flooding.

When Hurricane Sandy swept across the East Coast, the powerful storm killed more than 100 people, devastated coastal cities in New York and New Jersey, and shut down mass transit systems. One New Jersey town that was hit hard was Sayreville. Many residents, including Darden employees, lost their homes and were without power and unable to work for more than a week.

Darden employees quickly responded by sending much-needed relief to fellow employees in need. "Darden Dimes understood the financial hardship we endured and graciously donated \$200 cash gift cards to us," said Erin O'Kelly, a server at an Olive Garden in East Brunswick, N.J. "I can't thank Darden enough for recognizing our needs and the speed in which they delivered the cards to us."

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Corporate Conscience

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Darden Dimes also helps with transitional housing assistance resulting from abuse, emergency travel needs due to illness, care of family members, funeral expenses and relocation of surviving children. On average, five to 10 employees receive a grant from Darden Dimes every day to help them get back on their feet after an unexpected emergency. In FY2013, \$2.8 million in grants were distributed to employees for assistance.

Darden's workplace efforts landed the company on Fortune's list of the "100 Best Companies to Work For" in 2011, 2012 and 2013.

"In a service-oriented business like ours, oftentimes the difference between a good guest experience and a great one is the discretionary effort of our employees," says Clarence Otis, Chairman and CEO of Darden. "That's why we make a promise to every one of our employees that what you do, who you are, what you learn and who you're with, matters. We're convinced that our commitment to maintaining a strong, people-focused culture is the most important factor to our success."

What Darden provides to its employees comes back in the most important way. Together, they work toward a shared goal: to deliver great guest experiences.

Caring for Communities

Darden's commitment to people goes beyond its employees. Darden also is committed to serving communities by donating to hunger, education and environmental efforts.

In America, more than 50 million people go hungry every year, and restaurants often throw away thousands of pounds of edible food each night. In 2004, a small group of Darden restaurant managers decided to bridge this disconnect in their community by donating unserved food to local charities. This caught the attention of Darden's leadership, who wanted to expand this effort company-wide to help those in need.

Today, the Darden Harvest program—working with the Food Donation Connection, a company that manages food-donation programs—donates prepared, unserved food to local nonprofit charities. Every restaurant has a system for routing edible food, which otherwise would have been thrown away, to hungry people. The procedure involves preparing, bagging, tagging and freezing food to be picked up once a week by various food-service agencies. For example, if a customer changes his order after the meal was prepared, that meal is immediately bagged, tagged and

frozen. Excess ingredients may be saved for donations as well. Since the program began in 2004, Darden has donated more than 67 million pounds of food to hunger relief organizations.

Another way Darden supports communities is through its Restaurant Community Grants program. Launched in 2011, the program allows every Darden restaurant in the United States and Canada to donate a \$1,000 grant to a nonprofit organization in their community.

"We give to organizations that range from small, independent non-profits you may not have heard of, all the way to organizations such as the Boys & Girls Club of America," said Rich Jeffers, Director of Communications at Darden.

In 2012, the program awarded more than \$1.9 million to nearly 850 non-profit organizations. The program will likely award over \$2 million in donations in 2014.

Education is also an important topic for Darden. Through the company's Recipe for Success™ program, Darden provides disadvantaged youth with the tools they need to pursue higher education. In addition, they prepare students for what to expect in post-secondary education and provide scholarship funding.

Lastly, Darden is involved in conserving natural resources. The Darden Foundation created the Great American Trail program with the National Recreation and Parks Association (www.nrpa.org) to restore, improve and update trails across the country. Darden also support local community gardens through the NRPA's Grow Your Park initiative. Other key conservation partners include the New England Aquarium, the Everglades Foundation and Audubon of Florida.

Protecting Our Planet

Though Darden has been focused on sustainability for decades, there was a push to do more in 2007.

During restaurant tours, Darden executives noticed many of the young restaurant employees expressing an interest in the company adopting more sustainability practices.

"The idea [of doing more] came out of our millennial workforce," said Brandon Tidwell, Manager of Sustainability at Darden Restaurants. "Seventy percent of our employees are 30 and under, and they are very interested in this issue. This millennial generation grew up with environmental education in school, and they want to make a difference in their careers and be actively engaged. They grew up recycling at home and separating

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their trash, so when they can't do the same thing in the restaurant, it's frustrating for them. They want their workplace to share their same values."

Darden's leadership considered their employees' suggestions and analyzed market trends, which also reflected a shift toward pursuing more energy efficiency and water conservation efforts.

In 2008, Darden decided the best way to focus on sustainability was to split the efforts into two manageable parts. One committee concentrates on energy, water and waste in the restaurants, and the other on fisheries and supply chain. These committees include members from human resources, development, facilities, operations, finance, capital equipment and supply chain. They meet on a regular basis to determine what sustainable opportunities exist and how to take advantage of them.

Grassroots Efforts

One idea that arose from the energy, water and waste committee was setting up restaurant "Sustainability Teams", in-house restaurant team members who are responsible for implementing sustainable projects and initiatives set forth by the development and facilities departments.

Early Sustainability Team campaigns included creating equipment power up/ down schedules, performing water leak inspections and sending interactive posters of Darden's current sustainability efforts to restaurants. Today, many of Darden's 2,000-plus restaurants have three to five employees serving on the Sustainability Team.

"These posters were a starting point for us," said Todd Taylor, Director of Design at Darden Restaurants. "Our team members would get excited about them and provide feedback about the efforts. Their ideas were routed to the sustainable committee, and our job was to discuss ways we could implement them and make them a reality."

"When I heard about the Sustainability Team, I felt like it was almost a personal obligation to our society and community to make sure we're doing things to better tomorrow and making sure our environment is protected and maintained instead of creating a larger carbon footprint," said Pam Martin, a Sustainability Team member at a Bahama Breeze restaurant. "I want to make sure we're doing the most that we can to make sure our impact on the environment is minimal."

Through the Sustainability Teams, Darden proved that a variety of simple tasks make a big difference. For example, setting every programmable thermostat to a factory standard helped cut energy costs. "I'm in charge of the thermostats in the restaurant," said Michele Smith, a Sustainability Team member at a Red Lobster. "So when I come to work in the morning, I make sure all the thermostats are set where they are supposed to be. I'm glad to be part of [Darden] because it gives me a chance to feel like I'm helping out and I'm doing something good, too."

One Big Goal

In 2009, Darden set an important target to reduce its per-restaurant energy and water usage by 15 percent by 2015 and, one day, to send zero waste to landfills. It's called the "15x15 Over Zero" goal.

To reach its goal, restaurants retrofitted lighting with energy-efficient bulbs, installed low-flow faucets and valves, optimized thermostat settings and power-up schedules, and pledged to build all new restaurants using green building designs.

So far, over 500 Olive Garden and Red Lobster restaurants have replaced all interior incandescent and halogen lighting with new LED lamps. The LED lights are estimated to last 50,000 hours, as opposed to 4,000 hours with incandescent and halogen lights. The retrofit saves Darden an estimated \$2 million per year on energy costs.

According to Darden's 2013 Sustainability Update, the company met its water goal by reducing its per-restaurant water usage by 15 percent on an aggregate basis. This equates to reducing, or avoiding using, a billion gallons of water.

"Though it's a great accomplishment, but we're not stopping at 15 percent," said Jack McNertney, Senior Director of Facilities, Building and Campus Services at Darden. "Water conservation varies by brand. Some brands achieved a 30 percent water reduction, while others, such as Long Horn, which is the brand that is least reliant on water, has increased their usage by 2 percent. On aggregate, though, Darden has reduced water use 15 percent on a per-restaurant basis, but we still have work to do on a brand-by-brand level."

To further lower water use, Darden's initiatives for 2013 include installing dipper well systems and new landscape irrigation opportunities.

As for energy, Darden has reduced its per-restaurant energy use by over 12 percent. To advance closer to the 15 percent goal,

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Darden is expanding its pilot of on-site energy management systems that are showing reductions of 7 to 8 percent per restaurant. Darden is also piloting solar water heaters.

And for waste, recycling efforts have been expanded, increasing the company's landfill diversion rate by 28 percent. Currently, more than 600 restaurants participate in single-stream recycling, which recycles cardboard, plastics, metals and glass. Darden will also begin piloting organic recycling in 2014.

Lastly, an oil-recycling program, initiated in 2010, reclaims 100 percent of Darden's fryer oil. Five million pounds of oil have been collected and sold to make new products, such as biofuel, soaps, cosmetics and animal feed.

To ensure the company's growth is continued in sustainable ways, Darden builds most new restaurants using LEED-standard prototypes (Olive Garden, LongHorn Steakhouse, Red Lobster, and Bahama Breeze). Currently, 12 Darden restaurants have applied for or achieved LEED status. Darden is also building its first LEED-certified Yard House restaurant in Orlando, Florida.

This new green design standard incorporates energy-saving features such as a system that captures the heat vented by HVAC and refrigeration equipment to warm water, drip irrigation systems for landscaping, and hands-free faucets, low-flow sinks and flush valves. In addition, the new design incorporates more windows to light the interior with sunlight instead of electricity, and all interior lighting utilizes LEDs.

The building materials are sourced from regional suppliers up to 500 miles away, and many items such as the sheetrock and carpeting are made from recycled materials.

Existing restaurants will also be retrofitted and remodeled to bring them up to the new prototype's standard. Furnishings that are removed are donated to groups such as Habitat for Humanity.

Getting Noticed

Sustainability is good business. To date, Darden's sustainability efforts have saved the company \$20 million. By 2015, the company expects an additional \$8 to \$10 million in savings. "We did this because it's the right thing to do; it's in our DNA as a values-driven company and because our employees wanted this," Tidwell said.

NAEP National E-News Quest for Papers:

We are always looking for articles for this great practitioner-based publication. Consider providing our nationwide audience a bit of your professional experience and insight by authoring an article for this publication. What we need is a MS Word document between 1,500 and 3,500 words with photographs, a short personal bio and a picture of you so our readers know who is telling them their story. It is really important for this publication to represent all fields of professional endeavor and all areas of the country. Also if you have an interesting article on an interesting subject that was written by someone else, let me know and we will try to republish it for our audience.

— Paul B. Looney, CEP, CSE, PWS
NAEP Newsletter Editor
paul.looney@volkert.com

The thumbnail image shows the cover of the NAEP National E-News for January and February 2014. The cover features the NAEP logo at the top left, the title 'The National Association of Environmental Professionals' in a serif font, and the subtitle 'NAEP National E-News January – February 2014'. Below the title, there is a section titled 'President's Letter to Members' with a photo of the president. To the right of this is a 'Table of Contents' listing various articles and their page numbers. The cover also includes a small bio and photo of the editor, Paul B. Looney.

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2014 Annual Conference Changing Tides & Shifting Sands

April 7 – 10, 2014
St. Petersburg, Florida

Website: www.naep.org/2014-Conference

This year's technical sessions include presentations from key individuals that will provide insights into the changing environment of the profession. The **NEPA Track** will include discussions on recent NEPA cases, insights from National Park Service representatives, and a presentation from Horst Greczmiel of the President's Council on Environmental Quality. The **Transportation Track** will have presentations on expediting project delivery, integrating health into infrastructure design, and updates on rail projects. The **Visual Resource Track** will address coastal and energy development issues with particular emphasis on landscape and seascape impacts as well as visual impact issues associated with large-scale renewable energy development and transmission. **Cultural Resource** topics will include railroad projects, case studies on Section 106 processes, and archaeological testing strategies.

The conference includes a full track on **Remediation** with presentations by FDEP representatives on the new oil and gas program, natural attenuation approaches to treatment, and other technologies for environmental management. Presentations on **Brownfield** projects will showcase some highly successful projects that can be applied to many settings. **Sustainability** presentations will provide an understanding into the approaches for large organizations, site cleanups, urban forests, and solar energy projects. The **Geology Track** will have presentations on facilitating Fracking project review and implementation, mitigating challenges with geophysics, site characterization studies.

A full track on ecological topics will include **Water Resource** presentations on water supply, watershed management, Numeric Nutrient Criteria, and stormwater management. The **Wetland Track** will have presentations on wetland mitigation and mitigation banking, Kissimmee River Restoration, and conservation. **Wildlife** topics will include wildlife crossings, listed species protection, and public/private partnerships for conservation.

Coastal Resources will be discussed in presentations on beach renourishment, breakwaters, and shoal monitoring. The **Climate Track** involves a panels on a climate change vulnerability screening tool and assessing and mitigating climate change impacts. **Land Management** concepts associated with solar energy projects and private property rights will be presented.

Registration is still open at www.naep.org/2014-Conference.

There are still booth, tabletop, and various sponsorships opportunities available to choose from to expose your company and product to over 400 Environmental Professional from around the country and overseas! Exhibit space is still available at a great rate. Reserve your spot today. Use our online form to sign up for an exhibit space or a sponsorship.

There are a limited amount of hotel rooms left at the group rate through March 16th. The link to make your hotel reservation can be found on the Conference website.

Join us for a fun evening at the famous [Salvador Dali Museum](#) in St. Petersburg, with a special exhibit of Andy Warhol's work. This will be a private event open to NAEP conference attendees only.

Please contact [Donna Carter](#) if you have general questions about the conference.



NAEP Appreciates the Support of Stanley Consultants

The NAEP Board would like to thank Stanley Consultants, Inc. for allowing us to hold our January 2014 Board Meeting in their Phoenix, Arizona offices. Stanley Consultant did so because they support “NAEP’s work and the organization’s contributions to the environmental profession”, according to Ms. Courtney Arena, Stanley Consultant’s Manager of Environmental Services for Florida.

Stanley Consultants is a consulting engineering firm recognized in the engineering industry for our commitment to client service and our passion to make a difference. With a focus on energy, water, transportation and the environment, we bring global knowledge, a century of experience, and multi-disciplinary capabilities to serve our clients.

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As a member-owned company our members are especially proud they can make a difference for you. Whether it’s a safer freeway interchange, a sustainable wastewater treatment plant, a stronger levee, or an efficient power plant, we help improve the quality of life for people around the world.

In 2013, Stanley Consultants celebrated its 100th anniversary by performing community service around the world. During the year our members volunteered over 10,000 hours of time and personally donated over \$150,000 to support local communities and organizations. It’s our way of saying “Thank You” to the organizations and clients who contributed to the success of Stanley Consultants for the past 100 years.



For more information, connect with us at www.stanleyconsultants.com



American Public University

NAEP/APU Three-Part Webinar Series 2014

Join us for our third exciting year of interactive webcasts with industry experts sponsored by American Public University and the National Association of Environmental Professional (NAEP).

APU and NAEP are collaborating on this 3-part series focused on professional development for environmental professionals; helping you build the skills you need for success.

Below is a list of the topics of the 2014 webinars:

- **Part 1: Effective Project Management**
Wednesday, February 19, 2014, 12:00 p.m.–1:15 p.m. ET
ON DEMAND RECORDING AVAILABLE AT <http://www.apu.apus.edu/lp2/webcast/NAEP-2014/index.htm>
- **Part 2: Environmental Customer and Client Skills**
Wednesday, July 16, 2014, 12:00 p.m. – 1:15 p.m. ET
- **Part 3: Top 5 Public Speaking Tips for Environmental Professionals**
Wednesday, November 12, 2014, 12:00 p.m. – 1:15 p.m. ET

To register click this link: <http://www.apu.apus.edu/lp2/webcast/NAEP-2014/index.htm>

For a detailed description of each of the three webinars in this series please click below to read more.

Part 1: Effective Project Management Wednesday, February 19, 2014, 12:00 p.m.–1:15 p.m. ET

Based on a complete report on the 2012-2013 National Environmental Employment Survey conducted by the Environmental Career Center, our panel of industry experts will cover the top ten effective project management strategies and tips for environmental professionals to help you improve your efficiency, as follows:

- Overview of the essential skills and principles for effective project management
- Top 10 tips, practical techniques, and tools that can help boost your efficiency.
- Surround yourself with the best team you can.
- Learn how to successfully coordinate efforts between a variety of stakeholders and how to prioritize projects and tasks.
- Cover the life cycle of a project, in order to break it into easy to manage stages.
- Define your project in terms of project scope, roles and responsibilities
- Organize and document a project by using a wide variety of tools that add value to the project management process.
- Don't forget risk assessment and risk management

Speakers

- Michael D. Smith, Ph.D. - Senior Program Manager at AECOM
- Kris Thoemke, Ph.D., CEP - APU Faculty Member and Senior Scientist at Coastal Engineering Consultants, Inc. (CEC)



NAEP/APU Webinar Series *Continued from page 25*

Part 2: Environmental Customer and Client Skills Wednesday, July 16, 2014, 12:00 p.m. – 1:15 p.m. ET

Following the survey results, environmental customer and client skills are incredibly critical for the success of environmental professionals. For this webinar, our top experts will give you their advice on best practices and tips for how to improve your customer and client skills for overall successful interactions within your workplace and professional community, as follows:

- Industry experts share their “stories from the field”
- Address misconceptions and expectations about how federal contract, government agencies, and GSA schedule works
- Overall professional but at times overlooked skills that can help you excel on your customer and client interactions
- Tips on how to demonstrate your skills confidently and successfully
- Being a good listener, exercise great communication skills, and keeping your promises among other factors are critical
- Become the expert and the leader always offering a positive solution
- Take the extra step for your customer and clients to earn trust and leverage your projects
- Gain critical information and resources you can use to improve on these skills from a professional development perspective

Speakers

- Ron Deverman, Principal Environmental Planning Manager, HNTB; Former NAEP President
- Carol Pollio, Ph.D., Program Director for Environmental Sciences, American Public University System
- Kris Thoenke, Ph.D., CEP, APU Faculty Member and Senior Scientist at Coastal Engineering Consultants, Inc. (CEC)

Part 3: Top 5 Public Speaking Tips for Environmental Professionals Wednesday, November 12, 2014, 12:00 p.m. – 1:15 p.m. ET

Our panel of industry experts will cover the top public speaking tips for environmental professionals to help you be more confident, persuasive, and therefore, more successful as you interact in new projects and build your network, as follows:

- Cover the critical qualities and skills for memorable speakers
- Address best practices on how to put your thoughts into a compelled and engaging presentation
- Know your material, your audience, and address your topic appropriately considering their level of knowledge
- Use personal stories and suitable language to convey your important messages
- Remember to relax, pause, smile, and transform nervous energy into enthusiasm
- Visualize yourself giving a successful speech
- Take every opportunity to practice public speaking in board presentations, conferences, or client meetings as rehearsing and experience help build your confidence

Speakers

- Alison Turner, Senior Director, Katz & Associates, Inc.
- Marie Campbell, President, Sapphos Environmental Inc. and second term as At-Large Board Member for the National Association of Environmental Professionals (NAEP)
- Kelly Reis, Ph.D., Faculty at American Public University



About the Author: At the time he wrote this article, J. Peyton Doub was a furloughed¹ environmental scientist with the U.S. Nuclear Regulatory Commission. During that time, he could not legally perform any work in his capacity as a Federal official. He could however use that time to help advance his profession, in his capacity as a citizen of the United States. This article constitutes his effort.

Reflections on the Benefits of NEPA

J. Peyton Doub, CEP, PWS

The National Environmental Policy Act (NEPA) establishes a series of prescriptive requirements for “agencies of the Federal Government” (42 USC 4332), and hence most NEPA practitioners work directly or indirectly for the Federal Government. Many like myself work directly for a Federal agency, while many others work for private businesses who contract with Federal agencies. The continued implementation of NEPA therefore constitutes an ongoing investment of taxpayer money. The recent Government shutdown² forced me to reflect on whether the taxpayers are getting their money’s worth with NEPA. This is of course a complex question requiring subjective considerations and much more quantitative data than is available to me. However, after considerable internal reflection, I have come to the realization that NEPA is indeed an appropriate application of public resources. After more than 25 years experience as a practitioner involved with NEPA and related environmental protection statutes, I know first hand that NEPA is not implemented in the most efficient manner possible. But what worthwhile human endeavor is? Like many NEPA practitioners, I have published multiple articles suggesting specific ways to improve and streamline the NEPA process, and I will continue to do so. But I remain steadfast in my position that American society is better off with NEPA than without it, and that maintaining and improving our standard of living in the 21st Century will require the continued implementation of NEPA and related environmental statutes.

Appreciation of NEPA requires an appreciation of how it benefits our society. The same can be said for related environmental statutes such as the Clean Water Act, Clean Air Act, and Endangered Species Act. The remainder of this article will refer to NEPA but is applicable to related statutes as well. The benefits of NEPA may be considered to be of two types. The most obvious may be termed direct benefits (to avoid confusion with direct and indirect impacts, I will designate these as Type A benefits). For NEPA, one sort of Type A benefit results when

an agency decides on an action that is environmentally superior to an action previously contemplated. Such an alternative might involve accomplishing a specific objective with reduced water demands, reduced air emissions, or less encroachment into wetlands or historic areas. As an example, I worked several years ago on an environmental assessment by the U.S. Forest Service that evaluated alternative approaches for controlling non-native plant species in a National Forest in Michigan. After reviewing public comments, the Service decided to implement an alternative in the EA that called for treatment of greater acreage than did the proposed action. This was a picture perfect example of a public benefit realized through the NEPA process. These are the sort of benefits that the public expects from its ongoing investment in NEPA.

Less obvious but no less important are what I will designate as indirect or Type B benefits. Most parties developing projects have realized that it is usually easier and less expensive to design projects that will minimize the environmental planning and permitting process. Agencies proposing projects using environmentally friendly designs can expect that an EIS or EA will encounter less resistance than would a more environmentally damaging design. Whereas an agency might have once published an EIS for an environmentally damaging project and responded to adverse comments by ultimately selecting an environmentally friendly alternative (achieving a Type A environmental benefit), it might now propose the environmentally friendly design in the

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- 1 Most Federal employees not working on designated “essential” functions during the Government shutdown of 2013 were placed in a temporary non-work status termed a “furlough”. They were not allowed to perform work on behalf of the Government while furloughed. The Government was not required to pay furloughed employees during the shutdown but ultimately agreed to do so through legislation.
- 2 The “2013 Government Shutdown” was a temporary, partial closure of many Federal agency functions extending from October 1 to October 16, 2013. It was forced because Congress and the President had not agreed upon a budget or continuing resolution funding agencies into the new fiscal year beginning October 1, 2013.



Benefits on NEPA

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first place. The net result is the same; however, no changes are directly documented through the NEPA process.

For the latter scenario, the NEPA process may appear to the public to have been of little value – an almost pro forma documentation exercise. But would the agency have really proposed an environmentally friendly design if it did not know that it had to guide the design through the NEPA process? The benefits of NEPA are there, just not in plain view. It is my opinion these unheralded, undocumented Type B benefits constitute the principle benefit of NEPA today. It is my opinion because I can neither quantify nor corroborate my position. This is the inherent nature of Type B benefits. Society benefits, but it may not realize it. The only way to prove these benefits might be to repeal NEPA and observe whether project designs revert to the sort of easily avoidable environmental impacts that predated NEPA. But the results of such an experiment could be (and probably would be) catastrophic.

This mixture of Type A and Type B NEPA benefits applies not only to choices among alternatives but also to mitigation. If an agency proposes to establish a wetland mitigation project or to buy credits in a wetland mitigation bank, that is a Type A benefit. Mitigation actions such as reducing traffic levels during peak hours, planting trees along a scenic roadway, or disguising cell towers as trees are also Type A benefits. But what about efforts to avoid or minimize wetland encroachment, traffic levels, or aesthetic degradation? If made in response to comments on

a draft EIS, these too would be Type A benefits. But if made as part of the design process prior to publishing the draft EIS, the avoidance and minimization actions could be Type B benefits. Society may benefit as much if not more from these early avoidance and minimization efforts than from highly visible compensatory mitigation actions developed between publication of the draft and final versions of an EIS.

I therefore posit that we as NEPA practitioners contribute to a tool that substantially benefits the public we serve. We see constructed wetlands, preserved riparian forests, signs interpreting historic sites, and conservation set asides, and we appreciate these visible environmental benefits. Then we see rambling EISs, cost overruns, and project delays and we wonder if the benefits are truly worth the costs. But what we do not see are the easily avoided environmental impacts that never occur. How many stream valleys remain today because of anonymous efforts in initial project design to position activities away from streams? How many forests remain in urban areas because agencies and developers decided to preserve these areas instead of converting them to lawns? If we could only perceive these unseen benefits we might understand the justification for the costs. NEPA has never been implemented perfectly, and it likely never will be. NEPA will always have costs as well as benefits. We as NEPA practitioners must continually strive to improve NEPA, to continually work toward an asymptote of perfect efficiency that we can never achieve. We must understand the costs of NEPA and the costs of NEPA's imperfections. But we must also remain confident that what we do has benefits. Our jobs are important.

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Editor's Note: I met Erin at the networking event following the 2014 Conference Planning session in Tampa last October. She is an energetic and committed student that impressed me greatly with her goals and ambition. She served as Vice President for the USF student chapter of Tampa Bay Association of Environmental Professionals (TBAEP-USF) during the 2012-2013 school year. She is now serving as the regional Conference Chair for the 2014 conference. She has designed and leads the NAEP Student Poster Competition event. With the current volume of student abstract submissions, the event is expected to be a huge success! You will all be very pleased with the calibre of posters at this conference. Make sure you make her acquaintance at the Conference. Great Thanks to Erin for all she is doing for the USF Student Chapter.



Erin Morrison is a Senior Civil/Environmental Engineering student in the BSCE program at the University of South Florida. Her strengths are in leadership, communication, and academic achievement. Her interests pertain to both existing and emerging engineering technologies. She holds a position at the USF Water Quality research lab which allows her to explore both of these technology types.

Margaret Cone is an alumna of University of South Florida (M.S. Environmental Engineering, 2013)

USF Student Design Teams Win at the WEFTEC Student Design Competition

Erin Morrison and Margaret Cone

Congratulations to the two USF student design teams who participated in the national 2013 Water Environment Foundation Annual Conference (WEFTEC) Student Design competition. The engineering teams were divided into two sub categories: wastewater and environmental. The Wastewater Team was awarded First place in the nation for their category. The Environmental Team won Second Place nationally. In order to compete nationally at WEFTEC, it was necessary for the two teams to place first in the Florida Water Environment Association

(FWEA) State Student Design Competition held at the Florida Water Resources Conference (FWRC) in April, 2013.

Both of these yearlong projects required strong teams and committed team members. Members of these teams were recruited in advance during the fall of 2012 from the anticipated spring 2013 Capstone Design class by their advisor, Dr. Sarina Ergas. The two teams, which included both undergraduate and graduate students, began their projects and committed to compete well before the actual Capstone Design class had begun. Dr. Ergas's approach to the Capstone Design course is unique in the sense that she obtains real clients with real issues requiring engineering analysis and design. Therefore each of these USF teams had actual clients that stood to benefit from the time and attention they invested into their projects. The USF wastewater team was composed of five team members: Nicole Smith (Project Manager), Melissa Butcher, Margaret Cone, George Dick, and Matthew Woodham. This team was tasked with determining the best use for biogas that will be produced after a planned overhaul of the bio-solids treatment process at the City of St. Petersburg's Southwest Water Reclamation Facility (SWWRF).

After calculating expected biogas production at the facility, the USF wastewater team worked closely with the City of St. Petersburg's Water Resources Department to develop seven biogas utilization alternatives, which ranged from cogeneration alternatives (e.g. utilizing biogas as a fuel for internal combustion engines) to renewable natural gas alternatives (e.g. fueling the



Wastewater Team First Prize Winners (left to right): Nicole Smith (Project Manager), Margaret Cone, Melissa Butcher, Matthew Woodham, George Dick, Dr. Sarina Ergas (Faculty Advisor), and Jeanette Brown (WEF past president) at WEFTEC 2013.



WETFEC Student Design *Continued from page 29*

City's sanitation fleet vehicles with biogas purified to renewable natural gas quality). Alternatives were evaluated based on the City's priorities, and internal combustion engines were selected as the recommended alternative for the City due to their high economic return and flexibility should the City decide to take steps to increase biogas production in the future.

The success of the biogas utilization project was in part due to the extra effort each and every team member put into the project—from Melissa manually sampling biogas (rotten eggs, anyone?) from a local water reclamation facility to George investigating not one—but three!—ways to transport biogas from the SWWRF to the fleet vehicle fueling station. What the design team did not expect was the overwhelming support of the Florida professional engineering community, especially the group's official professional mentor, Mr. Juan Oquendo, P.E. from Gresham, Smith and Partners. Mr. Oquendo guided the team in organizing tasks and scope of work, provided feedback on reports, and shared his extensive knowledge on biogas utilization. His contributions were invaluable and the team extends much gratitude for his assistance.

The USF environmental team consisted of 5 team members: Erin Morrison (PM), Brett French, Caitlin Hoch, Miki Skinner, and Josh Becker. The primary objective of the Booker

Creek Evaluation and Design project was to address eutrophication concerns within the Booker Creek basin, a 3200 acre urban watershed, located in St. Petersburg, FL.

A point of interest in this project was the detective work required before and during the actual design phase. When the team's client, the City of St. Petersburg, handed the project over, available water quality data implied nitrogen over-enrichment was occurring within the Booker Creek basin. This raw stored water quality data, however, had not yet been fully evaluated and over-enrichment had not yet been confirmed. Therefore the first phase of the project was devoted exclusively to data analysis in order to determine if over-enrichment within the basin was actually occurring.

Once this over-enrichment was confirmed, it was necessary to locate an ideal site for the team's design. Because the site determined the design, and the design determined the site, this process was a bit of a limbo act. In addition to finding a strategic location ideal for high nutrient reduction, variables such as land use, permitting, and community support all factored into determining the final design location within this large urban watershed. Multiple sites and design options were investigated before the final design location, Woodlawn Lake, was determined. The lakes position at the headwaters of Booker Creek, as well as the elevated levels of nitrogen the team found to be depositing from the lake into Booker Creek, made this location ideal for their design.

The design included the implementation of Floating Treatment Wetlands as well as the optimization of an outlet structure and littoral shelf. The overall reduction of TN, due to this design, was estimated at 51% bringing the lake back into compliance with the Florida Department of Environmental Protection. This reduction in TN gave an expected Chlorophyll a level of 15 µg/L which would ensure the long-term health and compliance of the Booker Creek Basin.

From beginning to end, Mr. Carlos Frey, P.E. with the city of St. Petersburg was a tremendous asset to the team and their project. The design and real-world experience gained by the members of both teams were invaluable, and the reward of a winning design was truly gratifying. The USF design teams extend their appreciation out to all participants that made this competition possible.



Environmental Team Second Prize Winners (left to right): Brett French, Erin Morrison (Project Manager), Miki Skinner, Jeanette Brown (WEF past president), Caitlin Hoch and Joshua Becker at WETFEC 2013



Florida Association of Environmental Professionals Chapter Report

The Florida Association of Environmental Professionals (www.FAEP-FL.org) is comprised of the FAEP and eight local chapters. The local chapters enable the FAEP to remain active throughout the state of Florida, addressing issues that are of State, regional and local interests. The FAEP provides numerous monthly networking and educational sessions throughout the state via the Central (www.CFAEP.org) Northeast (www.NEFAEP.org), Northwest (www.FAEP-NWFL.org), South (www.SFAEP.org), Southwest (www.SWFAEP.org), Tallahassee (<http://faep-tally.com>), Tampa Bay (www.TBAEP.org), and Treasure Coast (<https://sites.google.com/site/tccfaep/>) Chapters. To see a list of upcoming events, please visit the local chapter website or visit the Calendar of Events on the home page of the FAEP website for a full list of events throughout the state.

If you have any questions about the FAEP, please contact FAEP President Mary Gutierrez at 850-549-7472 or mary.earthethics@cox.net.

FAEP Elections Update:

The Florida Association of Environmental Professionals (FAEP) recently held annual elections for the Executive Committee and new At-Large Board Members. The following list represents the full elected and returning FAEP Board of Directors for 2014: President: Mary Gutierrez, Earth Ethics, Inc. Pensacola; Vice President: Amy Guilfoyle, PPM Consultants, Inc. Orlando; Treasurer: Tim Terwiller, PE, Arcadis US, Inc. Tampa; Secretary: Elva Peppers, Florida Environmental & Land Services, Inc. Tallahassee; Past President: Kristin Bennett, Tetra Tech, Inc. Stuart; At-large: Alexis Preisser, Dewberry | Bowyer-Singleton, Inc. Orlando; At-large: Erin Kane, Accutest Laboratories, Inc. Tampa; At-large: Courtney Arena, Stanley Consultants, Inc. West Palm Beach; Bruce Hasbrouck - NAEP Representative; Jennifer Cummings - Central Chapter; Ed Currie - Northeast Chapter; Amy Mixon - Northwest Chapter; David Bogardus - South Chapter; Matt Miller - Southwest Chapter; Elva Peppers - Tallahassee Chapter; Tim Terwilliger - Tampa Bay Chapter; Paul Fitzgerald - Treasure Coast Chapter.

FAEP is dedicated to advancing objective, ethical standards and technical excellence in our diverse profession. FAEP is a multidisciplinary professional association of Environmental Professionals from a variety of disciplines including: biologists, scientists, geologists, environmental engineers, environmental attorneys, wetland scientists, botanists, planners, and many other disciplines that perform environmental work.

FAEP Board of Directors 2014 Goals:

1. Increase membership throughout the State
2. Increase the student chapters and membership
3. Finalize our board book.
4. Obtain and implement CEU/CEP certifications.
5. Implement State Environmental Excellence Awards Program
6. Implement State Scholarship Program.

Around the Sunshine State – Chapter Programs and Events

Northwest Chapter:

Friday, March 21st from noon – 1 CST at IHMC 40 South Alcaniz Street, Guest Speaker is Mark Gibson, Pensacola Naval Air Station Station. Mr. Gibson will discuss “Navy Natural Resources Management”. He’ll cover: Land Management, Fish & Wildlife, Forestry....to include wetlands, protected species, military mission, planning, budgeting... The meeting is free of charge however lunch will cost \$12 (nonmembers), \$10 for members, and \$5 for students. Please RSVP to Christy Draper at nwfaep@gmail.com.

Thursday, April 17th from noon – 1 CST join us for a coastal clean-up in celebration of Earth Day. Location TBD. Visit our website for more details.

Central Chapter:

Wednesday, March 19, 5:30 pm -7:30 pm – Networking Social at Marlow’s Tavern, 1008 S. Orlando Avenue, Winter Park. Please RSVP to Amy (amy.guilfoyle@ppmco.com).

Thursday, April 17, 11:30 am -1:00 pm – Luncheon at Leu Gardens, 1920 N Forest Ave, Orlando. Speaker TBA. Contact Amy for more information (amy.guilfoyle@ppmco.com).



FAEP

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Tallahassee Chapter:

March 12th -Networking Social and Billiards Tournament, Come join the fun to raise money for our TAAEP Scholarship Fund, \$5 entry fee for tournament. Winner gets a \$25 American Express Gift Card donated by Todd Hodgson with FECC, Inc. AND bragging rights! 5:30-8:00 PM

Snacks provided free for members and \$5 for nonmembers. Location TBD. RSVP to: slewin@cfl.rr.com.

April 16th - General Membership Meeting- Blueprint 2000: Cascade Park Redevelopment

11:30- 1:00. RSVP to receive a discount on your lunch. With RSVP \$5 lunch fee for members and \$10 for nonmembers - RSVP to: slewin@cfl.rr.com.

May 14th -Networking Social. 5:30-7:30 PM. Snacks provided free for members and \$5 for nonmembers. Ray's Steel City Saloon 515 John Knox Road Tallahassee, FL 32303-4117.

RSVP to: slewin@cfl.rr.com.

Tampa Bay Chapter:

March

4th – BOD Meeting @ Golder Office

19th – Lunch @ Brio (Joe Eakle) – Brian Moore of CRA – Topic: Drycleaner Solvent Cleanup Program Update (the first 15 years). The presentation will also touch upon the recent changes to the Petroleum Pre-approval program, and how the state reim-

bursement programs in general are likely to look in the coming years. Sponsors: Confirmed: Tetra Tech (\$250), NOVA Engineering and Environmental (\$250), US Environmental Rental (\$250)

22nd – Keep Pinellas Beautiful cleanup (on the water) – launching from county parcel located at the corner of 78th Street N and 70th Avenue N in Pinellas Park. Canoes will be provided or participants can bring their own watercraft. (just spreading the word, not hosting the event)

27th – Social – Tampa Bay Brewing Company. Sponsors: Confirmed: TetraTech (\$250), Keep Tampa Bay Beautiful (\$250),

April

7-10th – NAEP Conference

8th – FAEP Hosted Social (tentative) followed by Dine-around town

9th – President's Reception @ the Dali Museum

10th – TBAEP Hosted Social @ The Birchwood/Canopy – Confirmed.

12th - 2014 Great American Cleanup- 9am-12pm, Al Palonis Park, 5121 West Gandy Boulevard, Tampa, FL 33611. TBAEP will have a group at this event.

May 21st – Luncheon (topic pending)

President's Letter

Continued from page 1

I wish to thank Bruce Hasbrouck and the conference planning committee for their tireless efforts to make this conference successful. With the help of the Florida Association of Environmental Professionals and their Tampa Bay Chapter, our local presence, we have a valuable professional education event this year.

To make the most of the conference, schedule some time within the next month after the conference to review the handouts, notes, and jump drive with presentations on it. This is a way to reinforce what you learned, and is another opportunity to realize how the information can assist you in your job. It may be

of use to produce a personal trip report, highlighting the lessons that you can take forward and use in the future.

Also happening in the Spring of 2014 are a full schedule of webinars and chapter events, including those of NAEP and our partners American Public University and Vermont Law School. Plan to attend these also. As a member, you will receive invitations in your email inbox.

Harold Draper



Get your CEP — Save Thousands of Dollars

The Academy of Board Certified Environmental Professionals (ABCEP) has just partnered with American Public University (APU) to allow up to 6 transfer credits to those who hold the Certified Environmental Professional (CEP) credential. The value of these credits can substantially reduce the cost of a Masters of Science Degree in Environmental Policy and Management or can serve to offset elective credits in other Masters programs at APU.



Certifying Environmental Professionals since 1979

To find out the details, go to <http://www.apus.edu/TransferCredit/accepted/graduate/internal-policies/abc-env-prof.htm> or visit the ABCEP website: www.abcep.org.

Some information on APU:

- It is the first, fully online university to receive the Sloan Consortium's (Sloan-C) Ralph E. Gomory Award for Quality Online Education (2009) and two-time recipient of the Sloan-C Effective Practice Award (2009-2010).
- APU has more than 150 degree and certificate programs as well as online courses to help with certifications and professional development in subjects ranging from Environmental Hazard Mitigation and Restoration (Grad Cert); Environmental Planning and Design (Grad Cert); Environmental Policy and Management (Capstone, MS); Environmental Risk Assessment (Grad Cert); Environmental Science with four concentrations (BS), Environmental Sustainability (Grad Cert); Environmental Technology (Undergrad Cert), Fish and Wildlife Management (Grad Cert, Undergrad Cert), Transportation & Logistics, Business Administration, Information Technology, and many others.
- APU's combined undergraduate tuition, fees and books are roughly 20% less than the average 4-year public university's in-state rates, helping to maximize your tuition assistance program. (The College Board, *Trends in College Pricing 2011*, October 2011.)
- APU will carefully evaluate prior learning, including eligible on-the-job learning, for the award of academic credit.

This gives you another excuse to apply for your CEP today.

Advertising Opportunities in the NAEP Newsletter

The NAEP Newsletter is offering a limited amount of advertising space in the publication. Advertisements will be limited to two pages per issue for 2013 and once that space is filled per issue there will be no other advertisements accepted. Advertisers will have the opportunity to purchase space in all remaining issues of 2012 so that they can be assured of space in each issue. This is a great opportunity to both support NAEP and gain access to a potential readership of over 6,500.

Ads can be purchased in either quarter or half page sizes and is priced at a very affordable price that starts at \$375 per ad for a quarter page ad when 6 ads are purchased. The purchasing of ads in advance allows the advertiser to reduce their costs and allow you to make sure your ad space is reserved.

For more information on advertising opportunities or to reserve your space please contact Tim Bower at 856-283-7816 or by email at naep@naep.org.





Please Donate to the James Roberts Scholarship Fund



You may not have known him.

Yet you were certainly influenced by him.

Honor his legacy.

*Donate to the James Roberts
Scholarship Fund TODAY.*

Jim Roberts travelled far and wide to espouse the worth of living an ethical life, including the way you performed your job. He lived the Code of Ethics and Standards of Practice for Environmental Professionals.

NAEP has developed the James Roberts Scholarship Fund to assist promising individuals while they are still in school. This is your opportunity to preserve and extend the legacy of Jim Roberts.

All donations are tax-deductible. Go to NAEP.org and click Scholarship Foundations to make your contribution. You can also donate when you renew your NAEP membership.

Thank you,
Gary F. Kelman, Chair

James Roberts Scholarship Committee
Mel Willis
John Perkins
Bruce Hasbrouck
Teri Hasbrouck



Become a Certified Environmental Professional (CEP)

OBTAIN THE RECOGNITION YOUR CAREER DESERVES:

- *Do you have an environmental certification? Good*
- *Does this environmental certification measure your experience and depth of knowledge, not just facts? Yes*
- *Does this environmental certification include an objective peer review of your abilities? Yes*
- *Is your environmental certification accredited by a third-party certifying body? Yes*
- *Then your environmental certification must be a CEP from The Academy of Board Certified Environmental Professionals (ABCEP).*



Certification is available in five areas:

- Assessment
- Documentation
- Operations
- Planning
- Research/Education

Beginning in 1979, experienced environmental professionals were able to become certified through a comprehensive peer review addressing years of experience, responsibility, and knowledge. Certifications are nationally-recognized and available for a wide range of eligible professionals including:

- Federal/state/local agency staff - Consultants - Researchers - Compliance managers
- Enforcement officials - Activists

Initially offered as a certification through the National Association of Environmental Professionals (NAEP), the Academy of Board Certified Environmental Professionals (ABCEP) established organizational independence in 1993. In 1999 ABCEP became a nonprofit organization. In 2005, the ABCEP achieved accreditation by the Council of Engineering and Scientific Specialty Boards (CESB – www.cesb.org)

The ABCEP CEP brings heightened confidence in the professional quality of documents, evaluations, and decisions. Certified individuals satisfy the professional requirements outlined by the USEPA, ASTM, and other regulatory agencies, providing assurance to employers and customers. For the individual, certification increases opportunities for promotions, marketability, and career advancement. Certified individuals maintain their knowledge, experience, and credentials through continuing education, teaching, mentoring, publishing papers, and complying with the Code of Ethics.

Become a CEP-IT: The ABCEP offers mentoring and a CEP-In Training (CEP-IT) designation to junior and mid-level professionals developing towards CEP eligibility. The CEP-IT increases individual and firm marketability, enhanced career opportunities, and enhanced networking opportunities.

More Information: Contact ABCEP at office@abcep.org; www.abcep.org; or 1.866.767.8073 Do you have an upcoming meeting and need a speaker? Speaker opportunities by CEPs about ABCEP are available in certain geographic locations.

Call for papers for publication in the scholarly journal:

ENVIRONMENTAL PRACTICE

The journal of the National Association of Environmental Professionals

PRACTICAL IMPROVEMENTS FOR BETTER IMPLEMENTATION OF NEPA vol. 16 no. 4 (December 2014)

The National Environmental Policy Act is criticized for costing too much, taking too long, and accomplishing too little. We are seeking proposals for articles to take on these criticisms.

The December 2014 issue of *Environmental Practice* is devoted to practical – not theoretical or academic – improvements for implementation of NEPA. Please consider the fundamental purposes of NEPA when preparing your proposal: to inform public officials and citizens before decisions are made and before actions are taken, and to facilitate public involvement in decisions that affect the quality of the human environment. We are less interested in papers on better documents and more interested in papers on better decisions that protect, restore, and enhance the human environment.

**Deadline for submittals is
May 15, 2014 to
dcarro17@depaul.edu**

**Sample issues of the journal
can be found at:**

[http://journals.cambridge.org/action/
displayJournal?jid=ENP](http://journals.cambridge.org/action/displayJournal?jid=ENP)

**Guidelines for publication can
be found at:**

[http://journals.cambridge.org/action/
displayMoreInfo?jid=ENP&type=ifc](http://journals.cambridge.org/action/displayMoreInfo?jid=ENP&type=ifc)

For questions, please contact
Dan Carroll, Managing Editor, at
773-325-2298, or by email at
dcarro17@depaul.edu

We invite manuscripts that touch on any of these criticisms but we are especially interested in those that deal with:

- (i) Problems arising from vague, erroneous, or missing provisions in NEPA-implementing regulations
- (ii) Official guidance. Are our questions being answered authoritatively and in time?
- (iii) Support and active involvement of decision-makers. Budgets, schedules, and—finally—using these documents to make decisions that protect, restore, and enhance the human environment
- (iv) Variations in NEPA implementation created by agencies (e.g., actions excluded for one agency but not for another)
- (v) Inflation of the EA into the “mini-EIS” we see commonly today, as opposed to an analysis of significant adverse impacts
- (vi) Inflation of the categorical exclusion into a non-trivial paperwork exercise involving multiple levels of review and approval
- (vii) Cumulative impacts to the global environment, such as individually small increments of greenhouse gas emissions in the context of an EA/FONSI
- (viii) The skill of the workforce. Do NEPA practitioners have the necessary training and access to training to make the findings necessary to populate an adequate NEPA document?
- (ix) Consultants. Do government contracts to prepare NEPA documents increase their bulk, time to prepare, and cost?
- (x) NEPA mythology. How many things do we believe to be true about NEPA that are not true? Are these getting in our way?

ENVIRONMENTAL PRACTICE

The journal of the National Association of Environmental Professionals

SERVE ON THE *ENVIRONMENTAL PRACTICE* EDITORIAL ADVISORY BOARD

The editorial office of *Environmental Practice* is seeking to expand the membership of the Editorial Advisory Board. *Environmental Practice* is a peer reviewed journal published by Cambridge University Press for the National Association of Environmental Professionals. The journal has an interdisciplinary focus, and reaches thousands of scholars and practitioners across the United States.

As a member of the Editorial Advisory Board, we would rely on you to solicit two manuscripts a year to be subject to the journal's peer-review process, write one non-reviewed manuscript each year, and conduct double-blind peer reviews as your schedule allows.

The editorial standards of the journal are maintained in part by the knowledge, contributions, and enthusiasm of our members. We are actively seeking candidates with expertise in the following areas:

- NEPA
- Wetlands
- Brownfields
- Ethics
- Air and Water Quality
- Endangered Species
- Hazardous Waste
- Superfund
- Permitting and Project Management
- Restoration Ecology
- Climate Change
- Sustainability
- International Issues

Our goal is to maintain an active Editorial Advisory Board of 25 members, composed of both NAEP members and external experts. To indicate a desire to serve on the Editorial Advisory Board, please contact our managing editor with a copy of your resume or curriculum vitae.

Applications can be submitted to:
dcarro17@depaul.edu

Sample issues of the journal
can be found at:

[http://journals.cambridge.org/action/
displayJournal?jid=ENP](http://journals.cambridge.org/action/displayJournal?jid=ENP)

Guidelines for publication can be found at:

[http://journals.cambridge.org/action/
displayMoreInfo?jid=ENP&type=ifc](http://journals.cambridge.org/action/displayMoreInfo?jid=ENP&type=ifc)

Environmental Practice is located
at DePaul University.

For questions, please contact
Dan Carroll, Managing Editor, at
773-325-2298, or by email at
dcarro17@depaul.edu





Membership Benefits

Who We Are:

- We are a multidisciplinary, professional environmental association.
- We are dedicated to the promotion of ethical practices, technical competency and professional standards in the environmental fields.

What We Stand For:

- We stand for Integrity in the environmental professions.
- Our foundation is our Code of Ethics and Standards of Practice.
- As environmental professionals, we serve the public, our employers, and our clients with integrity, fairness and technical objectivity.

What We Do:

- We work for a diversity of employers, including government, industry, consulting, academia, and the private sector.
- We work in varied disciplines: air, water, noise, waste remediation, ecological resources, transportation, NEPA, sustainability, and education.

How You Benefit:

- Annual Conference brings together nation's top environmental professionals
- Timely research through our peer-reviewed journal, Environmental Practice
- Access to Best Practices through our national committees
- Professional networking opportunities and activities through state and regional chapters
- On-line career center tailored to the environmental professions
- Bi-monthly eNews featuring research findings, perspectives and chapter activities
- Bi-weekly National Desk newsletter featuring reporting from the publisher of GreenWire and ClimateWire
- Educational webinars on diverse topics such as new regulations and guidance, review of recent case law, and other emerging issues
- Member enjoy discounts on conference, regional and local programs, and members-only page on our website www.naep.org

How We Are Unique:

- Interdisciplinary environmental practitioners
- Strong professional conduct through our Code of Ethics
- Achievement recognition through our Environmental Excellence Awards

Affiliated Chapters:

- | | | |
|--------------|------------------|------------------|
| • Alaska | • Hawaii | • North Texas |
| • Arizona | • Illinois | • Northwest |
| • California | • Mid-America | • Rocky Mountain |
| • Florida | • Mid-Atlantic | • Texas |
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JOIN NAEP NOW!! To join NAEP and one of our affiliated chapter, go to www.naep.org