

How, Not What, Delays Environmental Decision-Making (Newsletter)*

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Careful reading of environmental laws such as NEPA, CWA, CAA, ESA and state equivalents, and the regulations and guidelines implementing them, reveals that they specify in detail what is to be done but they do not provide equally explicit instructions on how to produce a technically sound and legally defensible decision document. Not enough attention has been paid to eliminating the lack of detail on how to fulfill requirements of these environmental laws, regulations, and agency guidelines. Regulatory agency staff, regulated industries, and the public benefit from the use of modern, appropriate tools that ensure consistency, predictability, and timely consideration of permit applications.

Resource allocation and environmental impact assessment decisions require regulators to demonstrate that all relevant information has been considered in the scope of the assessment; that the concerns, issues, and alternatives identified by all participating agencies, tribes, stakeholders, and public are included; that the decision is technically sound and defensible against protests, appeals, and litigation; that all reasonable alternatives are equally and objectively considered; and that the decision is not arbitrary or capricious. Unfortunately, neither regulations nor more specific guidelines describing “what” is to be done provide the necessary explicit instructions on “how” to ensure compliance.

Mathematical models are regularly used, even required, to predict water quantity and quality changes associated with permit applications for projects. Storm water runoff, water quality in pit lakes or off-site receiving waters, ground water hydrology, and hydraulics for peak and ecological flows are required to support regulatory decisions. However, environmental impact (and ESA-listed species) assessment decisions of “significance” or “minimally adverse” future conditions still rely on the BOGSAT (Bunch of Guys Sitting Around Tables) model despite availability of robust and suitable mathematical models. Similarly, the CEQ’s guidelines on cumulative effects analysis in NEPA offers only a set of alternative methods (without detailed instructions)

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and says to “pick the most appropriate for each project.” Not much help, according to frustrated regulators and project proponents. Modern tools allow flexible and comprehensive inclusion of cumulative effects in project alternatives.

Lack of detailed instructions how to comply with determining appropriate water quality standards for non-potable waters or identifying biologically-meaningful groups of plants and animals to be protected under the Endangered Species Act results in subjective decisions that are too often appealed or challenged in court. The resulting delays benefit no one. However, for these statutes, too, there are robust models available that provide the “how” to meet the “what” and other requirements of the CWA, ESA, and their state equivalents.

All of us have readily adopted to technological changes in writing (from manual to electric typewriters, to dedicated word processors, to microcomputers), in communications (rotary dial telephones to push buttons phones, fax machines, overnight delivery of physical documents, cell phones), and navigating in our vehicles (paper maps to accessory GPS receivers that talk to us). There is no reason to not take advantage of modern technologies and robust mathematical models to better inform planning and permitting decisions, particularly when the situation is controversial, sensitive, and likely to result in an appeal or lawsuit.