This is the second in a series of posts on the reasons we might have environmental review. The first post is here.

Why might we have an environmental review statute such as NEPA when we already have a range of other environmental protection statutes such as the Clean Air Act, the Clean Water Act, and more? What does NEPA do that these other statutes are not already doing?

One possibility is that NEPA serves as a back-stop for other environmental laws, filling in gaps they do not cover. The advantage of NEPA is that it is written in extremely general terms. It requires agencies to examine and disclose "reasonably foreseeable environmental effects" of a proposed agency action. While many environmental effects may already be considered and regulated under other statutes, there may be many other effects that are not considered under other statutes. That might be because the proposed agency action is one with a novel kind of environmental effect not previously considered for regulation – for instance, consider the possible impacts of introducing genetically modified organisms into the environment, when that technology was a nascent one. It might be because the environmental effect is an uncommon one, one that was not seen as widespread or important enough to justify regulation. And sometimes there are just gaps in regulatory coverage – for instance, there are not consistent regulations to address the threats to agriculture and ecosystems from the introduction of non-native species into the United States.

But even when existing statutes do cover a particular environmental effect, they may only provide partial regulation or coverage of the effect. Most important here are cumulative environmental effects: Where the harm to the environment results from the aggregation of many small actions, each of which is not large individually, but in the aggregate the impacts are significant. Climate change is a classic example of cumulative effects. In many cases, our existing environmental laws do a poor job of addressing cumulative impacts. For instance, addressing the cumulative impacts of different emissions sources on a watershed requires a complicated process under the Clean Water Act. And while the Clean Air Act does set regulatory standards based on regional air quality, which will account for cumulative impacts at a regional level, the law has long been criticized for inadequately considering local cumulative impacts, such as the aggregate effect of siting multiple polluting facilities near individual neighborhoods.

Related to cumulative impacts are indirect effects – the environmental effects not

directly caused by a project, but by the other activities the project facilitates or enables. For instance, a highway may only directly cause habitat destruction in the footprint of the highway itself, but by enabling more drivers to go to more places more quickly, the highway will enable subsequent development that might have a much larger environmental impact. NEPA requires consideration of those effects. Other statutes may do so (for instance, the Endangered Species Act requires consideration of similar effects, at least for federal agency decisions), but they may also not (for instance, point source permitting under the Clean Water Act tends to focus on the impacts caused by the discharge from a particular source, rather than the broader systemic impacts that issuance of a permit might create by allowing for the construction or expansion of that source).

NEPA, in theory, can cover all of these effects, since its definition of environmental effects is so capacious. But what about in practice? I think it is fair to say that in general the quality of cumulative impacts analysis under NEPA has been … inadequate. That is in part because cumulative impacts analysis is really hard to do well – it requires a lot of information about all the various sources of environmental impacts, many of which are small and so may not be tracked well or at all; about how those impacts interact with each other to affect an environmental resource (such as a waterbody or endangered species); and what each source's contribution to the overall impact is. Those informational challenges were much steeper in the past, but current technologies for data collection and analysis have greatly increased our capacity to do cumulative impacts analysis. Nonetheless, cumulative analysis remains time consuming and costly – and perhaps is better done at a programmatic or large-scale level, rather than on a project-by-project basis, as is frequently done under NEPA today. Still, we have no better option at the moment for consideration of many forms of cumulative impacts – especially with respect to community-level impacts, which are a major component of environmental justice harms.

NEPA has probably done better with indirect effects, and indeed NEPA's indirect effects review often covers environmental harms that otherwise might never be considered under other regulatory statutes. For instance, climate change impacts of projects are often only considered under NEPA.

NEPA's coverage of impacts that are not covered by other statutes is an area where in practice the outcomes probably have been better as well. Particularly where those impacts are substantial, the analytic challenges presented are less than in the context of cumulative impacts. But novel impacts may still be costly and difficult to

assess, at least the first time around. That however is not a fault of NEPA, but more a consequence of the fact that we are dealing with a new problem that we have not studied before.

But that leads to the other major question about NEPA as an environmental back-stop. As critics of NEPA frequently note, NEPA has no substantive teeth. Once the agency has done its NEPA analysis, it can just proceed as it wishes on the project. So what, exactly, is the point of NEPA as an environmental back-stop if it can't change any outcomes? That question is the subject of the next post.