

K. Bogdan: As part of your getting started to prepare your cumulative effects analysis, and after you've identified the issues, then you would describe the existing conditions, known as the Affected Environment of the resources related to those issues. The Affected Environment section in your NEPA document provides a starting point for the cumulative effects analysis. These do not need to be encyclopedic. The description only needs to be as long as is necessary to understand the current conditions of the resource that you're analyzing.

A question that sometimes comes up when preparing a cumulative effects analysis is: does it have to be quantified? Quantification of effects is tremendously valuable in the cumulative effects analysis. Now to conduct a quantified analysis, you should identify your impact indicator. That is, what metric do you use to measure the impact? An example might be an impact for the Gnatcatcher, where the impact indicator might be the acreage of coastal sage scrub.

C. Humphrey: You know Ken, one of the benefits of identifying impact indicators is, it can help you quantify the effects. You know, we're always saying to quantify, quantify, and it gives us a common way to quantify. And in general, once you've identified the impact indicators for your resource, it seems like you could use the same one for other proposed actions.

One example would be maybe a biologist might have acres of a certain type of vegetation, or a recreation person, their impact indicator could be number of visitor days or number of dispersed recreation sites, maybe quantity of habitat, stuff like that. Those are some examples of impact indicators. Some people have a hard time with those impact indicators, so if you want some practice identifying them, we've got a couple courses that can help you. One of them is the NEPA: Analyzing Impacts course that we've talked about several times, and the other one is a Land Use Planning for Priority Species and Vegetation. Both of those are online courses and they can be found in the KRC and through DOI Learn.

K. Bogdan: So the qualitative analysis of direct and indirect effects doesn't readily lend itself well to combining effects of past, present, reasonably foreseeable actions, the effects of the proposed action and the alternatives. Therefore, it's typically necessary to quantify the analysis of the direct and indirect effects of the proposed action, and the alternatives. You need to develop and document analytical assumptions and your analytical methodology for quantifying your effects. Every time we conduct an effects analysis, we make these assumptions, but we don't necessarily document it, and it's helpful that we do that. For existing analyses of past, other present, and reasonably foreseeable actions that you rely on during your cumulative effects analysis, combining the effects should be relatively straightforward when the existing analysis is quantified. However, where the existing analyses were qualitative, it's desirable to quantify those effects if at all possible.

C. Humphrey: Well, in the abstract that sounds easy enough, but in reality how would you go about quantifying effects if they're qualitative? It doesn't seem too easy to me.

R. Hardt: Well, factors to consider in quantifying these analyses include information gathered in scoping about quantification of potential cumulative effects, similar activities that have occurred that have been analyzed with quantified analysis, programmatic analyses that have addressed these types of activities with quantified analysis. But in the absence of such information, you can still make reasonable assumptions to quantify the effects described in an existing qualitative analysis. For example, you can use information from monitoring reports, scientific studies, even past experience and professional judgment to quantify the effects described in an existing qualitative analysis.

Let's take an example. Say we're analyzing the effect of grazing on the amount of forage, and our impact indicator quantifies the effects on the amount of forage in the same way that, say our RMP/EIS quantified the effect of wild horse grazing on forage. But let's say we have an existing analysis—the Pretty Pony analysis—that had just a qualitative description of the effect of some other wild horse grazing on the amount of forage. How can we convert that into a quantitative analysis that we can then combine with these other effects analyses? Well, we go through the same process of making assumptions. We have to make some kind of analytical assumptions to be able to convert that qualitative description into a quantitative analysis. Now in doing so, it might require going back and talking to the agency that conducted that qualitative analysis, checking the assumptions you're going to use to see if they're reasonable with what they've done. Be sure to describe these analytical assumptions and the methodology and the basis for them in your cumulative effects analysis.

Now take a look at the affected environment for each issue identified for the example. Notice that we've identified an impact indicator for each issue.