Q & A: Implementing Single Phase Feasibility Studies: Getting to the Alternatives Milestone

March 5, 2015

The March 5th webinar, part of a series of information-sharing webinars hosted by the Planning Community of Practice, provided tips and guidance for Project Delivery Teams (PDTs) beginning a feasibility study.

Brian Harper from the Institute for Water Resources presented, while Sue Hughes from the Planning Community of Practice joined to assist in responding to questions from the field.



IMPLEMENTING SINGLE PHASE

FEASIBILITY STUDIES

This webinar builds on others in the

PCoP Webinar Series available on the Planning Community Toolbox, including:

- Implementation of WRRDA Section 1002: Single-Phase Planning & Notification of Study Schedules, February 2015
- Strategies for Scoping 3x3x3 Studies, October 2014
- Planning Tools and the IWRM Suite, September 2014
- One-Corps Feasibility Studies: Lessons Learned in Roles and Collaboration in Executing Feasibility Studies, December 2013

The questions and responses below are not a direct transcript; they have been reordered and edited for clarity. Additional questions and feedback are always welcome via email to hqplanning@usace.army.mil

The "Three Year Clock"

When does the three-year clock (for 3x3 compliance) begin?

The beginning date is the signature on the Feasibility Cost Sharing Agreement (FCSA). You can't sign your FCSA until the funding is already waiting. So as soon as you sign your FCSA, the funds will be allocated from headquarters to you. Because that "starts the clock," you want to be sure your sponsor is also ready with their funding before you sign the FCSA.

Any update on when the single phase / 3x3 model FCSA will be available?

It is still in the works. The expected completion time for that is early April. The new model is only for those that are starting off with a single phase - only the ten new starts that we got in FY15. If you have a study that was in FY14 or one of those new starts that had recon phase, use the existing FCSA model out there. You don't need to wait for this new model.

Project Management Plans and Study Management Tips

Comment: We are writing a SMART PMP for a new study. For our team, incorporating \$1.5M of in-kind contributions from the sponsor in the PMP - tasks, price tags and the schedule of delivery – has been difficult/challenging. This has required several workshop-style meetings with the PDT and sponsors. This up-front effort will likely be very important for many of our new studies to be aware of.

Shouldn't the PMP at this early stage also consider the length of time for an analysis - e.g. certain data collection may take a year to collect and analyze and is necessary for selecting the Tentatively Selected Plan (TSP)?

Yes, that is a good approach – your PMP, even early in the study, should look ahead beyond the Alternatives Milestone when you have enough information to do so. This is part of the reason we recommend the team develop multiple Decision Management Plans (DMPs) at the same time, because there are analyses that are going to start early but don't play into a milestone decision until later. This helps the team have the entire process in mind and what information they're going to need and how they're going to use it.

But with that said, this is also a time to ask ourselves if we really need to collect another year of data? What do we know now without the data collection? And then what will the data collection tell us? If it's adding a year of data to a record that we already have, the question is does that improve our knowledge? Does it reduce our uncertainty? And how does that relate to a fifty-year planning period of analysis going forward? We want to just have clarity and be able to explain to ourselves and others how we're going to extrapolate from that data collection to our future forecast with and without project conditions, and how it helps us to reduce uncertainty.

Has anyone tried to develop discipline-specific "typical" scopes of work for reaching each study milestone that could be used as a starting point for tailoring to local projects?

Not yet, although the new FY14 Recons shared their scopes / tools with each other as they developed them, so they and the PCXes are a good resource.

In the summary slide Brian mentioned that the PDT is likely to make a decision daily within the first three months - should a District be planning on having key PDT members focusing majority of their time to the one study in the 1st 90 days to meet the Alternatives Milestone?

The daily or weekly amount of time invested by key PDT members on any given study will vary based on the unique makeup of the team, the problems, opportunities, objectives and constraints, the availability of existing and relevant data, whether the Sponsor, resource agencies and stakeholders are already communicating with each other about the problem, and a variety of other considerations.

At minimum, a lead Planner and/or Project Manager (PM) should allocate some portion of time each day to coordinate with others and ensure purposeful critical thinking is leading to informed decisions. All PDT members will be involved in data collection and synthesis throughout the first months of study. Several team gatherings should be held to have group discussions of the study intent, available data, knowledge gaps, and path forward.

In general, several weeks of focused PDT discussions with other interests early in the study should suffice for preparing to communicate with the vertical team, via a charette or other forum. The PDT can present their summary plan of action for the study utilizing DMPs and a risk

register to document PDT uncertainties associated with future actions and decisions. Resultant vertical team discussions and alignment on decisions and next step actions will allow the PDT to continue preparation of the PMP, report synopsis and other information required in the first 3-6 months of study.

The Alternatives Milestone

What is the mechanism for getting VT agreement on the scope of the analysis during the process? What might the approval look like?

Each milestone during the development of the feasibility study and study documentation – from the Alternatives Milestone through the Agency Decision Milestone – is an opportunity for Vertical Team agreement on the scope of the analysis and the proposed next steps of the PDT. In preparation for Milestone meetings, In Progress Reviews or other informal meetings with members of the Vertical Team – and documentation of the outcomes of those meetings in a Decision Log – can document Vertical Team – District / MSC / HQ – agreement or specific issues with the proposed scope of analysis and a way forward.

Is there an expectation that items at the Alternative Milestone include a confirmation of Federal Interest specifically in terms of supportable construction? H&H and economics modeling for flood risk management projects often require more than 90 days to accomplish.

This is a change of perspective on what we mean when we start talking about federal interest. We used to place a much greater emphasis on federal interest meaning that the benefit-cost ratio is greater than one. But we know, we're not going to have a true benefit-cost analysis completed by the Alternatives Milestone. At this phase of study, the best we can do is have some approximations of where things are using coarse estimates of benefits and costs.

One of our primary considerations in federal interest at this point is - is there federal interest in the problem itself and in the solutions that are being considered? There are times where a problem comes to us. It sounds like one that fits one of our mission areas in the system or risk reduction, and then it turns out that the design of solutions are actually of a different nature and don't fit our agency's ecosystem restoration or flood risk management goals.

At recent Alternative Milestones, the Vertical Team has been looking for a lot of detailed information about the Future Without Project condition (especially about economics and H&H) that our PDTs haven't able to gather due to time constraints. How do we satisfy reviewers and the Vertical Team while also maintaining the schedule? Is there a standard list of information and the level of detail that's needed at the Alternatives Milestone and other milestones?

I'm going to key on the phrase that says PDTs haven't been able to gather information due to the time constraints. If that information / analysis is a key aspect of existing conditions in your study -- in this case H&H and economics are called out -- and you don't have baseline data, then I agree that's a concern. I would agree with the vertical team that we need to know something.

If the issue is that you have the base data but you haven't forecasted forward or done a formal forecasting or formal modeling of future changes, to me that is a discussion of uncertainty. It's a discussion that begins with: Here's what we have collected. Here's what it tells us. Here's what it shows us about trends and events or factors that alter those trends, how things are changing on the ground, what's happening with soil and water and whatnot, what's happening with people and property and the other things that econ will worry about, and coastal or flood risk. A Navigation or Ecosystem Restoration study would be variations on that theme.

Think of establishing future without project (FWOP) conditions as a four-part process. First, you need to have information about existing and historical conditions; second, you need to evaluate that history for the trends and the factors or events¹ that will alter those trends in conditions for the future; third, you need to state a set of assumptions based on those trends, factors, and events; and fourth, you quantify future conditions that result from those stated assumptions.

The first three items are key to supporting a good discussion of FWOP conditions at the Alternatives milestone. It's that kind of a discussion and your scope of work and your plan of work proceeding forward and how you're going to continue to formulate and prepare plans that would lay out how you're going to continue to improve form that base of knowledge. The fourth step is necessary for the evaluation and comparison of alternatives prior to the TSP milestone, but is an optional item for the Alternatives milestone, as long as sound formulation can occur without the formalized estimates of FWOP conditions.

¹ Examples of events could include an action by the Corps (construct authorized project) or others; a natural event like a flood, drought, coastal storm, etc; shifts in social or economic behaviors (new shippers, new route, new vessels, or new commodities in navigation projects); or other similar occurrence that shifts the trends in study area conditions.