

Benefits and Costs of Adaptation Options

The Benefits and Costs portion of template will provide a discussion that indicates the nature, direction, and potential magnitude of the benefits and the costs associated with the option. This section of the option write-up should identify the categories of costs and benefits, factors that affect their magnitude, and the unknowns governing effectiveness and costs. If there are quantitative estimates that are readily available for Benefits or Costs, please include them—but it is not expected or necessary.

The goal in including this section in all of the option write-ups is to enable comparison with other options within the same sector, as well as options across the sectors. What information do decision/policy makers need to make choices across options? This question should guide the discussion you choose to include.

This section is divided into four main parts: discussions of benefits, costs, ancillary costs and benefits, and data sources/documentation. The first two are most important. If there are no ancillary costs or benefits, or no documentation, omit these sections.

SUGGESTED OVERALL LENGTH: ½ p. to 2 pp

Please see the appendix if you want more guidance on any of these sections.

Benefits (positive or beneficial effects)

Overall: how would you rate the priority of this option—& why?

What are the categories of benefits produced by the option relative to the TWG objectives? Reference whatever metrics are appropriate (lives saved, value/acres of property/wildlands protected, avoided costs of moving structures, roads that last longer, culture protected, forestry/fishery production, expanded capacity etc.)

- What would you deem a “success” for this program?
- What is the time frame over which the option will produce benefits—months, years, decades?

What are some of the factors/circumstances that will determine the magnitude (or timing) of the benefits that are likely to result from the option (i.e., the effectiveness of the option in producing benefits).

What are key unknowns governing the success or appropriate design of this program, or the estimate of benefits?

Costs (financial requirements or negative effects)

Overall: would you describe this as a costly or reasonably priced option?

What are the *categories* (not quantified) of costs associated with the option?

- What are the actions/activities that have costs associated with them—developing regulations, legislation, monitoring, assessment, building, relocating, training, software development, etc.
- What are the programmatic costs involved—capital costs, ongoing operations and maintenance costs, labor, equipment, fuel, technology, grants, observational systems
- What are the cost components of other activities—such as the activities involved in assessment or studies
- What are the cost components of taking adaptive action, per se—protection, rebuilding or relocating infrastructure, training, fire suppression

- Who bears these various costs—state, federal, private sector? How long will these costs continue (is the option temporary or permanent?)
- There may be other costs of taking action in terms of implications for the “sector” and choices that are made—e.g., the costs of abandonment of property and loss of valuable property or farmland (as well as loss of tax revenues) if decisions to relocate rather than protect are made

What are some factors/circumstances that will affect the magnitude (or timing) of costs of the option?

What are key unknowns that would be important to resolve if a full-fledged effort was made to estimate costs (outside of this current process)

Ancillary Benefits and Costs

Are there ancillary (non-impact related) or unintended benefits of this option—such as reductions in greenhouse gases and/or criteria air pollutants (a benefit), protection of water quality associated with protection of forested lands, other economic benefits or costs (such as job losses).

Data Sources

Documentation of data sources used for estimates—or sources of information that could be used for a cost/benefit analysis (since may be beyond scope of the TWG)