

Summary of Changes in the GISST Report

Editorial Changes

1. Editorial changes were incorporated into both cover letter and report.

Cover Letter

1. In response to the comment below from Tim Thompson, removed statement on line 20 of cover letter indicating that there are no commercially available tools enabling use of GIS technology to enhance decision making.
 - Comment: Might consider modifying this statement. There are multiple examples of commercially available decision-support GIS-based software tools. (Thompson)
2. In response to comments below from Amanda Rodewald and Tim Thompson, changed letter and report to indicate that it is reasonable to evaluate **individual criteria, or suites of criteria** that represent vulnerability types, in the GISST to “red flag” the potential environmental impacts of certain types of projects. Changes were made in the cover letter (last sentence of second paragraph and first sentence of third paragraph) and report (second paragraph of executive summary, second sentence of the response to question 2.2, and last two sentences in the first paragraph of the conclusion).
 - Comment: I see that throughout the report, we emphasize that it is appropriate to use the GISST to identify “red flags”. However, given the important limitations of the tool and problems associated with the compensatory nature of the score system (i.e., high scores in some areas can mask low scores in others), I think that using one aggregate score does not adequately identify red flags. I think that viewing criteria individually or suites of criteria (e.g., those corresponding to different vulnerability types identified) would work, but I question if a single GISST score would. (Rodewald)
 - Comment: Consider modifying this statement. What I believe the Panel is suggesting is that the cumulative GISST score should not be used, but that in evaluating the grouped components (e.g., air, water, habitat), it can be used to help *inform* a decision. GISST should not in and of itself be used to make the decision. (Thompson)
3. In response to comments above from Amanda Rodewald and Tim Thompson, changed letter and report to indicate that the **aggregate GISST vulnerability or impact score** should not be used for detailed or screening-level assessments for decision making. (Rodewald, Thompson)

Report

1. Included changes above concerning how the GISST should be used. Changes were included in the executive summary and the conclusion of the report. (Rodewald, Thompson)
2. Added statement in introduction indicating that the GISST scoring system was developed by using arithmetic groupings to evaluate natural breaks in data and applying best professional judgment. David Stoms commented that natural breaks were not used to develop the scoring system, only the intervals used for maps. Called Sharon Osowski about this and she stated that natural breaks and best professional judgment were used to develop the scoring system. (Stoms)
3. Added paragraph at the end of the introduction calling for an EPA initiative to define a unified framework for creation of GIS-based tools. Also added sentence to the body of the report recommending that EPA follow the regulatory environmental modeling guidance. (these points were previously in the cover letter and the executive summary but not the report) (Sanders)
4. Changed sentence referring to wind rose model to “radar plots to enable visualization of criteria values.” (Stoms)
5. In the response to first charge question (page 5). Changed text in concerning the need for metadata. Separated the discussion of sensitivity analysis and goodness-of-fit measures from the data quality discussion. (Thompson)
6. Added example of how criteria may be combined in illogical ways (page 10). Used example of combining noise and odor criteria scores with scores for use of energy efficient appliances. (Thompson)
7. In charge question 1.3 response on page 14, added text describing how a scoring system could be developed for “vulnerability types”. (Rodewald)
8. Added text to the discussion of spatial interdependence of processes (page 17) to state that truly accounting for spatial interaction of environmental processes is equivalent to modeling and it may be beyond the scope of the GISST, which is not a predictive modeling tool. (Braud)
9. In the conclusion of the report, added some additional text concerning the need for a unifying framework for development of GIS-based tools. (Sanders)
10. The following comment was received on redundancy in the report.

4/13/06

- Comment: Some of the redundancy in concepts is the result of the charge question structure and therefore is to be expected. None of the redundancy seems frivolous. One could restructure the entire document to identify a number of key points that were then referred to from each section, but that level of revision does not seem warranted. (Fernandez)