

DRAFT 11/16/11
GENERAL PRINCIPLES
USED IN THE DEVELOPMENT OF
GUIDANCE FOR ASSURING INFORMATION QUALITY
IN THE NATIONAL CLIMATE ASSESSMENT

1. The Guidance is intended for **all CLAs, LAs, and Review Editors, NCADAC, and Government Agencies and Reviewers** (collectively referred to as “NCA Authors and Reviewers”) to assure that information is used in the National Climate Assessment (NCA or “Assessment”) production only in the manner appropriate to its quality. This Guidance will also serve to inform the public.
2. The Guidance will **not contain hard and fast rules; rather it establishes a methodology**, based on the specific information type, for all NCA Authors and Reviewers to consider a series of issues or questions. The NCA Authors and Reviewers will have latitude, appropriate to their expertise, in determining the appropriate use of the information.
3. The Guidance **methodology will be applied**, considering such things as source of information, category, and previous publication and review.
 - a. **Regarding peer review**, for all information, whether published or not, use in the NCA will be more easily facilitated if the information (e.g., methods, data, results and/or conclusions) has been reviewed by qualified professionals in the field or relating to the subject matter.
 - b. **Regarding non-published or non-peer reviewed information**, the Guidance will not require that all source material be based on published or peer reviewed material; however, the Guidance will include additional considerations for non-published or non-peer reviewed sources.
4. The Guidance will apply the standards set forth in the **NOAA Information Quality Guidelinesⁱ (IQA)**, considering the NCA as a **highly influential scientific assessment**. As such, the information that will be evaluated to create the Assessment is limited to scientific or technical knowledge, which includes, by way of example, factual inputs (representation of traditional knowledge), data, models, analyses, technical information, or other scientific assessments.
5. Based on source information type and whether it has been previously published or peer-reviewed, the Guidance will explain what should be considered to assure that any information incorporated into the NCA helps the Assessment meet the following three criteria, which comprise the NOAA standard for quality in terms of the IQA:
 - a. **Utility**. Information used in the Assessment should help ensure that the final product is **useful** to its intended audience, including the public.

- b. Transparency and traceability.** Information used in the Assessment must be considered with respect to its **transparency and traceability**, so that readers are better able to understand how the information used to generate the assessment supports the assessment’s overall conclusions. A determination of transparency and traceability includes consideration of how analytic results were generated and the accessibility and clarity of the specific data used, the various assumptions employed, the specific analytic methods applied, and the statistical procedures employed.
- c. Objectivity.** The Assessment must represent an objective consideration of the information it synthesizes. Thus the objectivity of the underlying scientific and technical knowledge on which the Assessment is based will be important as well. Objectivity consists of:
- (i) **Substance:** whether the information is accurate, reliable, and unbiased. Because scientific information reflects the inherent uncertainty of the scientific process, information is considered accurate if it is within an acceptable degree of precision or accuracy appropriate to the particular kind of information at issue and otherwise meets commonly accepted scientific, financial, and statistical standards, as applicable.
 - (ii) **Presentation:** whether disseminated information is presented in an accurate, clear, complete, and unbiased manner and in a proper context.
- d. Reproducibility.** In general, information used to produce the assessment should be capable of being substantially reproduced, subject to an acceptable degree of imprecision. With respect to analytic results, “capable of being substantially reproduced” means that independent analysis of the original or supporting data using identical methods would generate similar analytic results, subject to an acceptable degree of precision or accuracy.
- e. Information integrity and security.** Ensuring that the Assessment has been **safeguarded** from unauthorized access or revision will be a function of the overall process for generating and reviewing the document. In terms of the underlying information that is used to generate the Assessment, the NCA Authors and Reviewers will need to consider the extent to which the information has been and is capable of being safeguarded.
6. **Guidance Products** to implement these General Principles are being developed and will include a decision tree and guidance matrix.
7. **These General Principles**, as well as the Guidance Products will be periodically evaluated and updated, consistent with IQA.

ⁱ http://www.cio.noaa.gov/Policy_Programs/IQ_Guidelines_110606.html