



Public Employees for Environmental Responsibility (PEER) is a non-profit organized in the District of Columbia to hold government agencies accountable for enforcing environmental laws, maintaining scientific integrity, and upholding professional ethics in the workplace. PEER has thousands of employee and citizen members nationwide, including employees both within FWS and in other public agencies whose work with the trumpeter swan is hampered by the effect of this *90-Day Finding* in the management of trumpeter populations. PEER also represents a number of public employees who contend that the trumpeter swan *90-Day Finding* is a work of intellectual dishonesty, formulated as a result of political pressure demeaning all biologists working in public service. In addition, PEER members include citizens who have dedicated their careers to researching trumpeter swan populations. The dissemination of this false information, which circulated internationally via the world wide web, negatively affects the ability of reputable scientific study to address issues concerning the trumpeter swan population.

On January 28<sup>th</sup>, 2003, the U.S. Fish and Wildlife Service published a *90-day Finding* in response to a lawsuit by the Biodiversity Legal Foundation and the Fund for Animals that would designate the Tri-state Population of Trumpeter Swans as a Distinct Population Segment (DPS). In this *90-Day Finding* the FWS concluded, “the petition does not provide substantial information indicating that this flock is a Distinct Population Segment.” 68 FR 4221, 4221 (Jan. 28, 2003).

The Data Quality Act (DQA), Pub. L. 106-554 § 515 (Dec. 21, 2000), directs federal agencies to establish guidelines to ensure the “quality, objectivity, and integrity of information disseminated by federal agencies.” DQA, Section a. The U.S. Department of Interior guidelines for implementing the Office of Management and Budget’s rules enabling the Data Quality Act require that Interior agencies use the “best available science,” rely on “peer-reviewed studies,” and utilize “data collected by standard and accepted methods” 67 FR 8452, 8452-54 (Feb. 22, 2002). See also U.S. Fish and Wildlife Service Information Guidelines, Part III.

As detailed below, the information upon which the *90-Day Finding* was based fails to meet standards mandated in the DQA.

### **Summary of Argument**

The Data Quality Act of 2000 provides,

- a. In General -- The Director of the Office of Management and Budget shall, by not later than September 30, 2001, and with public and Federal agency involvement, issue guidelines under sections 3504(d)(1) and 3516 of title 44, United States Code, that provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies in fulfillment of the purposes and provisions of chapter 35 of title 44, United States Code, commonly referred to as the Paperwork Reduction Act.
- b. Content of Guidelines. – The guidelines under subsection (a) shall –
  1. apply to the sharing by Federal agencies of, and access to, information disseminated by Federal agencies; and
  2. require that each Federal agency to which the guidelines apply –
    - A. issue guidelines ensuring and maximizing the quality, objectivity, utility and integrity of information (including statistical information) disseminated by the agency, by not later than 1 year after the date of issuance of the guidelines under subsection (a);
    - B. establish administrative mechanisms allowing affected persons to seek and obtain correction of information maintained and disseminated by the agency that does not comply with the guidelines issued under subsection (a); and
    - C. report periodically to the Director –
      - i. the number and nature of complaints received by the agency regarding the accuracy of information disseminated by the agency; and
      - ii. how such complaints were handled by the agency

*See* Treasury and General Government Appropriation Act for Fiscal Year 2001, Pub. L. No. 106-554, § 515 Appendix C, 114 Stat. 2763A-153 (2000).

The U.S. Office of Management and Budget (“OMB”) published the Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies (Guidelines)(Feb. 22, 2002), which requires the U.S. Fish and Wildlife Service to have had, in place, by October 1, 2002,

regulations to implement the Data Quality Act of 2002 (“DQA”). See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 F.R. 8452, 8452 (Feb. 22, 2002). The U.S. Fish and Wildlife Service enacted such enabling rules, which are located at <http://irm.fws.gov/infoguidelines/FWS%20Information%20Quality%20Guidelines.pdf>. The *90-Day Finding* fails to adhere to these guidelines and is therefore in violation of the DQA.

***By relying primarily on a single source not compliant with OMB, Departmental and Service DQA Guidelines, the Service has violated the Data Quality Act.***

The primary information source for the *90-Day Finding* was an internal report by FWS Region 6 officials James A. Dubovsky and John E. Cornely. Published in October 2002, “An Assessment Pertaining to the Status of Trumpeter Swans (*Cygnus buccinator*).” This source:

- ? Was not subjected to peer-review;
- ? Relies on unsupported statements;
- ? Fails to utilize accepted methods for information collection;
- and?
- ? Makes misleadingly selective use of data, rather than utilizing the best available science.

***Use of the Service's secondary, back-up source has been  
Impeached by that source's lead author.***

The other principal document cited in the *90-Day Finding* was Gale et al. (1987). According to this report's lead author, FWS sacrificed the DQA's standards of quality, objectivity and integrity of the data by:

- ? Selecting data that support a pre-determined outcome;  
—and?
- ? Improperly re- interpreting the data.

**Argument**

***By relying primarily on a single source not compliant with OMB,  
Departmental and Service DQA Guidelines – namely the Dubovsky and  
Cornely Study -- the Service has violated the Data Quality Act.***

**I. The Dubovsky and Cornely Study**

The *90-day Finding* based the bulk of its conclusions on an internal analysis by Dubovsky and Cornely (October 2002). This analysis was a compilation of trumpeter data collected since 1949. The report includes a number of problems that make it an improper data source under the DQA.

**A. Not subjected to peer-review.** At the time the *Finding* was released, the Dubovsky and Cornely analysis had only circulated within FWS. It had never been published or submitted for peer review of any kind. Although much of this same body of literature had been summarized more comprehensively in the past, in literature that was rigorously reviewed, FWS chose to use the Dubovsky and Cornely analysis almost exclusively.

Reliance on this study runs in contrast to Department of Interior’s guidance for the DQA, which proscribes the use of the “best available science. . .including peer-reviewed studies where available.” The DQA further requires that information be “developed from reliable methods and data sources.” By favoring a non-reviewed report over a body of rigorously reviewed studies, the *Finding* violates the DQA.

**B. Relies on unsupported statements.** The report relies on a number of unsupported statements, contrary to standard practice in the scientific community:

- On Page 2, paragraph 1, the authors write “No good estimates of abundance exist for any region of North America prior to the 1930s.” Here the word “good” is used to wipe out inconvenient anecdotal information. Quantifiable estimates for any species of wildlife rarely exist before the 1930s. However, anecdotal information is nevertheless crucial to an understanding of the historical record and potential abundance. Anecdotal records are usually based on direct observations. The estimates before 1930 for most wildlife species may not lend themselves to statistical analysis, however, that does not mean the estimates are not noteworthy. 90-Day Finding at 2, ¶ 1.
- On page 3, paragraph 1, the authors contend “[t]he trumpeter swan was listed in the U.S. Fish and Wildlife Service’s (Service) ‘Red Book’ during the 1960s, due to a limited understanding of its status at the time.” Actually, the survival of trumpeters in the 1960s was precarious, and it is likely that Red Book listing was warranted. Here the report makes a generalization on an important subject without citing a single source. 90-Day Finding at 3, ¶ 1.
- On page 3, paragraph 2 the authors state“...the historical abundance and range of trumpeters suggest a generally contiguous distribution of the species, likely with a fair amount of mixing of birds from various regions.” Once again, the report does not state a source for this “likely mixing,” a highly significant, and debatable, point. The same paragraph adds, “These populations are defined primarily for management purposes and not in recognition of reproductive isolation or genetic differences.” There is ample disagreement within the research community on this point and a rigorous assessment would note this. 90-Day Finding at 3, ¶ 2.

The DQA requires that agencies ensure the “quality,” “integrity,” and “objectivity” of data in public policy. These examples of unsupported statements demonstrate a lack of rigor at variance with these standards.

**C. Fails to utilize accepted methods for information collection** In places, Dubovsky and Cornely make conclusions at odds with the body of history on Trumpeter populations.

For example, biologists commonly referred to the trumpeter swans of the tri-state area as a remnant population since the 1930's due to their significance as a distinct, remnant, self-sustaining population of birds. Through the following decades, this terminology was consistently applied. In the 1980s, biologists began to use the term "subpopulation", still recognizing the distinctness of the tri-state trumpeters from the Interior Canadian "subpopulation".

The *90-Day Finding* incorrectly characterizes this history, blithely stating that "the Service, in consultation with the Flyway Councils, divided trumpeter swans into three administrative populations on the basis of areas in which they nest. These populations are defined primarily for management purposes and not in recognition of reproductive isolation or genetic differentiation (Trost *et al.* 2000)." In the Assessment, Dubovsky and Cornely continually use the term "flocks", a lesser designation than either "population" or "subpopulation", in stark contrast to the accepted history, practices, and terminology of mainstream trumpeter scientists.

On page 2, paragraph 1, they write that, "[p]robably due to the take of trumpeters for markets and subsistence, trumpeter abundance was reduced throughout the continent,..." 90-Day Filing at 2, ¶1. The demise of trumpeter swans due to market hunting is not in question. It is well established among professional biologists to be the major cause. This statement raises doubt where it doesn't generally exist in the scientific community.

By ignoring historic protocols, the authors come to misleading conclusions. On Page 8, paragraph 3, the authors note, "... the total number of birds derived from tri-state stocks was 697 for 2001 (Fig. 11), or 7% higher than the peak number of tri-state nesting birds." 90-Day Filing at 8, ¶3. Combining numbers of High Plains birds with those of the tri-state birds is not common practice among experienced swan managers or

biologists because the High Plains birds do not contribute to the productivity or security of the tri-state birds. Adding the High Plains swans to the tri-state swans biases the numbers of birds upwards, so that the overall number of tri-state birds appears higher.

Dubovsky and Cornely periodically reject consensus in the scientific community by ascribing common beliefs to a minority. On page 4, paragraph 2, they write that "...a few conservation groups are concerned that the trumpeter swans nesting in the tri-state area could be outcompeted for limited resources by their Canadian counterparts, or experience substantial winter mortality due to severe winter weather." 90-Day Filing at 4, ¶ 2. While this statement seems intended to trivialize legitimate concerns, it is also misleading. Many interested parties, including the USFWS, Canadian Wildlife Service, the Province of Alberta, State of Idaho and the Pacific Flyway, are concerned about these factors and potential winter mortality. FWS has spent hundreds of thousands of dollars over the past 15 years to re-distribute swans to more temperate winter habitat. It has funded hazing, captive rearing, and relocation efforts as well to help solve these problems.

The DQA requires that agency information be "developed only from reliable data sources based on accepted practices and policies." By ignoring the accepted history, practices, and terminology of mainstream Trumpeter scientists, the Dubovsky and Cornely report does not meet the DQA standard of a "reliable data source," and once again fails to meet the DQA test of "integrity" and "objectivity."

**D. Makes misleadingly selective use of data.** Data pieces that contradict the authors' thesis are regularly omitted from the Dubovsky and Cornely report.

On page 10, the authors note that "...when biologists wish to make inferences about free-ranging, unmanipulated birds, they tend to use only information from normal, wild birds." "We would expect these birds to behave 'normally'..." These statements are used to discount observed migrations of Swans into Utah. 90-Day Filing at 10. In 2001, PEER published a white paper titled, "Swan Dive: Trumpeter Swan Restoration Trumped by Politics" which described the fate of 2 cygnets from Red Rocks Lakes NWR



killed in Utah. These were “normal, wild birds,” yet the authors ignore their existence. Other swans from the Tri-state area have migrated to their premature death in Utah, yet Dubovsky and Cornely downplay the significance of the migration.

Conversely, on Page 14, paragraph 2, the Finding states that “...two U.S.-nesting birds were sighted in Alberta, and 2 birds marked in Grande Prairie summered in the U.S. (Gale et al. 293-294). 90-Day Filing at 14, ¶ 2. We contend that these instances suggest some reproductive intermingling of the Canada and Tri-state Area flocks may be occurring, that gene flow is possible between the groups, and that sampling procedures may simply be inadequate to detect much interchange to date. ” Here Dubovsky and Cornely postulate intermixing of breeding populations based on 4 non-breeding birds with great zeal while ignoring more abundant data documenting migration of Trumpeters into Utah.

On page 8, paragraph 2, the authors state: “. . . recent surveys suggest swan abundance is increasing in Montana. If the rate of growth is maintained, the number of swans in Montana will reach 1963-88 levels in approximately 13 years.” 90-Day Filing at 8, ¶ 2. The conclusion is not supported by any analysis of available data and directly contradicts other recently peer-reviewed and published analyses which they ignore. They also ignore the 2002 USFWS Fall Survey of Trumpeter Swans, which revealed a significant loss of Montana swans over the previous winter. It is difficult to see how the “recent surveys” suggest an increase. Given the continued drought and lack of secure wintering habitat in Utah, the prediction that swan numbers will increase in Montana is unsupported by available data.

Dubovsky and Cornely use loaded language to introduce a non-empirical bias. On page 14, paragraph 1, the authors write that, “...few of those who voice concern about the status of tri-state swans mention issues related to habitat management at Red Rock Lakes or elsewhere as potential factors influencing swan status.” 90-Day Filing at 14, ¶ 1. Such statements have no place in a “scientific” paper performing an objective analysis.

On page 7, paragraph 1, state: “However, during the late 1980s, managers enacted several rather dramatic management actions.” 90-Day Filing at 7, ¶ 1. In reality, these actions were taken by the Service officially, and in conjunction with the Pacific Flyway Council. Calling them “rather dramatic” and ascribing them to a few “managers” adds unnecessary bias, implying that the managers were operating independent of the Service.

The Dubovsky and Cornely report fails every major test under the Data Quality Act: It has not been peer reviewed, it flouts standard scientific practices, it relies on unsupported statements and selected data, and it dismisses significant contrary opinions within the community. For these reasons it cannot be considered a reliable data source. The fact that FWS relied primarily on this document to write its 90-day Finding, especially in light of the large body of rigorously reviewed information available, violates the “integrity” and objectivity” standards of the DQA.

***Use of the Service’s secondary, back-up source – the Gale et al. Study-- has been impeached by that source’s lead author.***

## **II. The Gale et al. Study**

The second major study cited in the 90-day Finding was a 1987 study by R.S. Gale, E.O. Garton, and I.J. Ball. This study, cooperatively funded by the Service and the states of Wyoming, Idaho and Montana, and having been peer-reviewed by numerous Service, State and private trumpeter swan biologists, may be considered a “reliable data source” under the DQA. However, FWS misinterpreted the import of the study.

In a March 7, 2003 letter to FWS Director Steve Williams -- the study’s lead author, Ruth Shea (formerly Ruth Gale) --- details the manner in which the study was misappropriated by the service. See Letter, Ruth Gale Shea to Steve Williams (March 7, 2003), attached as Exhibit A.

**A. Selecting Data.** Shea notes that the Finding simply ignores Gale et al. when the data do not agree with the Service’s theses. For example, the Finding asserts that

trumpeters form pairings “during the fall and winter months,” and that interbreeding between Canadian and Tri-state populations occurs. According to the Shea letter, Gale et al. “concluded that pairing most likely occurred when the populations were apart either during migration or on the breeding grounds.”

Similarly, the Finding contends that major differences in migration patterns between the two swan populations (i.e. the Canadian population tends to migrate while the Tri-state populations does not) do not constitute “a unique behavioral trait within the meaning of DPS policy.” (Federal Register 2003: Vol. 68, No. 18:14). According to the Shea letter, Gale et al. specifically details how migration patterns impacts “energetics, habitat use patterns, productivity, and survival,” making migration pattern “one of the most fundamental behaviors of avian species.”

**B. Re-interpreting Data.** The Service incorrectly cites Gale et al. to support its conclusion that members of the Tri-state population of trumpeters are likely to interbreed with the Western Canada population (Dubovsky and Cornely, 2002:14). In contrast, the Gale et al. report specifically concluded that “[t]here is currently no evidence that these swans interbreed with the Interior Canada trumpeters. Until evidence of matings between the two groups is found, the Tri-state trumpeters should be viewed as a significant breeding population whose continued existence is threatened, and managed as a threatened population.” The Shea letter argues that FWS “wrongly cites” the study, “while omitting any mention of that report’s real conclusion.”

In selectively using and misinterpreting the data from the Gale et al. study, the Service violates DQA mandate that Service reports “ensure and maximize the quality, objectivity, utility and integrity” of agency data and information.

## **Conclusion**

According to the Data Quality Act guidelines for the U.S. Fish and Wildlife Service, “[h]igher levels of scrutiny are applied to influential scientific, financial, or

statistical information, which must adhere to a higher standard of quality.” U.S. Fish and Wildlife Service Information Guidelines, Part III-1, at 4. The term “influential” is defined as “information with a clear and substantial impact on important public policies or important private sector decisions” including “rules, substantive notices, policy documents, studies [and] guidance” as well as “issues that are highly controversial or have cross-agency interest. . .” U.S. Fish and Wildlife Service Information Guidelines, Part III-2, at 4.

The subject matter of the 90-day Finding has a substantial impact on 1) the designation of whether trumpeter swans should be protected under the Endangered Species Act; and 2) the application of hunting laws throughout the Rocky Mountain states. For these reasons it must be treated with “higher levels of scrutiny” under the DQA. U.S. Fish and Wildlife Service Information Guidelines, Part III-2, at 4.

The Finding relies primarily on a non-peer-reviewed report, the Dubovsky and Cornely study, even though a large body of rigorously reviewed reports was available. The Dubovsky and Cornely report breaches standard scientific practices, relies on unsupported statements and selected data, and it dismisses significant contrary opinions within the community, and as such does not constitute “a reliable data source” as defined by Interior’s DQA guidelines. It may not be used as a source for a government document under the DQA.

The misuse of the Gale et al. is also a violation of the DQA. The fact that data were selectively utilized, and that its conclusions were misinterpreted, undermines the DQA’s goal to “ensure and maximize the quality, objectivity, utility and integrity” of agency data and information.

In light of the evidence of multiple failures of the FWS to comply with the Data Quality Act in making its 90-day Finding on the trumpeter swan populations, PEER demands that the Department of Interior immediately withdraw the Finding.

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Eric Wingerter, National Field Director

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Dan Meyer, General Counsel

Public Employees for Environmental Responsibility (PEER)  
2001 S Street, N.W. – Suite 570  
Washington, D.C. 20009

Tele: (202) 265.7337  
[ericw@peer.org](mailto:ericw@peer.org)  
[dmeyer@peer.org](mailto:dmeyer@peer.org)