

1-31-2024

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Recommended Citation

Edward Randall Ornstein, *Indigenous Knowledge as Evidence in Federal Rule-Making*, 78 U. MIA L. Rev. 409 (2024)

Available at: <https://repository.law.miami.edu/umlr/vol78/iss2/5>

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Indigenous Knowledge as Evidence in Federal Rule-Making

EDWARD RANDALL ORNSTEIN*

Recent and historic federal guidance instructs agencies to consider Indigenous Knowledge in decision-making where it is available. However, tribal advocates are faced with many hurdles, in the form of “information quality” criteria, which requires the collection and dissemination of Indigenous Knowledge to conform to a complex set of procedural rules before agencies may be willing to consider it as evidence for rule-making. This Article seeks to define Indigenous Knowledge, highlight the hurdles to its implementation by federal agencies, and equip tribal advocates and officials with strategies and a demonstrative example of best practices for the packaging and presentation of Indigenous Knowledge in a manner which will give that knowledge the greatest chance of inclusion as evidence in agency decision-making.

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AUSPICIOUS BEGINNINGS

Before President Biden's administration, the last time there had been a ranking Native official in the White House, Charles Curtis of the Kaw Nation had served four unhappy years as Hoover's Vice President from 1929–1933.¹ His tenure in the Senate and White House saw him support allotment and boarding schools, and watch as the Great Depression swept the nation halfway through his first time in the White House.² He died of a heart attack three years later.³ Apparently that would do for Native representation in the 20th century. It would be almost a century before the Biden administration appointed the first Native cabinet secretary, Secretary Deb Haaland of the Department of the Interior, in 2021.⁴

The administration did not stop there: Natalie Landreth (Chickasaw) was appointed as Interior's Deputy Solicitor for Land; Arlando Teller (Diné) was appointed as Transportation's Deputy Assistant Secretary of Tribal Affairs; Lynn Trujillo (Sandia, Acoma, and Taos Pueblos) was appointed as Senior Counselor to the Secretary of the Interior; Michael Connor (Taos Pueblo) was appointed as Assistant Secretary of the Army for Civil Works; Marilyn Malerba

¹ See Livia Gershon, *Who Was Charles Curtis, the First Vice President of Color?*, SMITHSONIAN MAG. (Jan. 13, 2021), <https://www.smithsonianmag.com/history/who-was-charles-curtis-first-non-white-vice-president-180976742/>.

² *Id.*

³ *Id.*

⁴ Nathan Rott, *Deb Haaland Confirmed As 1st Native American Interior Secretary*, NPR (Mar. 15, 2021, 6:21 PM), <https://www.npr.org/2021/03/15/977558590/deb-haaland-confirmed-as-first-native-american-interior-secretary>.

(Mohegan) was appointed as U.S. Treasurer; Janie Simms Hip (Chickasaw) was appointed General Counsel of the U.S. Department of Agriculture; Bryan Todd Newland (Bay Mills Ojibwe) was appointed as Assistant Secretary of the Interior for Indian Affairs; Joel West Williams (Cherokee) and Ann Marie Bledsoe Downes (Winnebago) were each appointed as Deputy Solicitor for Indian Affairs; Wahleah Johns (Diné) was appointed as Director of the U.S. Department of Energy's Office of Indian Energy Policy and Programs; and of course, Charles Sams III (Confederated Umatilla) was appointed as Director of the National Park Service.⁵ The list goes on.⁶ With so many Indians on Capitol Hill, you could be forgiven for forgetting the last half millennia of Anglo-American Indian law and policy.

Rather than stopping with improved representation in the federal civil service, the administration committed later that year to "Building a New Era of Nation-to-Nation Engagement" and "Elevating Indigenous Knowledge in Federal Policy Decisions" with a flurry of

⁵ Jenna Kunze, *More Native Americans Named to Key Posts in Biden Administration*, NATIVE NEWS ONLINE (Feb. 16, 2021), <https://nativenewsonline.net/currents/more-native-americans-named-to-key-posts-in-biden-administratio>; Press Release, U.S. Dep't of Interior, Interior Department Welcomes New Biden-Harris Appointees, (Feb. 10, 2023), <https://www.doi.gov/pressreleases/interior-department-welcomes-new-biden-harris-appointees-1>; Jay Shannon, *Mr. Michael Connor, Assistant Secretary of the Army for Civil Works*, U.S. ARMY (Dec. 3, 2021), https://www.army.mil/article/252472/mr_michael_Connor_assistant_secretary_of_the_army_for_civil_works; David Lawder, *Biden Appoints First Native Woman as U.S. Treasurer, with Signature on Money*, REUTERS (June 21, 2022, 8:57 PM), <https://www.reuters.com/world/us/yellen-says-biden-nominate-first-native-american-us-treasurer-2022-06-21/>; Kathryn Dunn Tenpas, *Tracking President Joe Biden's Cabinet and Appointees*, BROOKINGS (Nov. 2021), <https://www.brookings.edu/articles/tracking-president-joe-bidens-cabinet-and-appointees/>; Press Release, U.S. Dep't of Interior, Interior Department Announces Additional Biden-Harris Appointees (Apr. 21, 2022), <https://www.doi.gov/pressreleases/interior-department-announces-additional-biden-harris-appointees>; Jenna Kunze, *Joe Biden Adds Several Native Americans to Administration*, NATIVE NEWS ONLINE (Jan. 26, 2021), <https://nativenewsonline.net/currents/joe-biden-adds-several-native-americans-to-administration>; News Release, Nat'l Park Serv., Charles F. Sams III Sworn In as National Park Service Director (Dec. 16, 2021), <https://www.nps.gov/orgs/1207/director-chuck-sams-sworn-in.htm>.

⁶ Executive appointments are rarely of interest to the casual observer of politics, but I promise, it's refreshing to have your eyes glaze over a list of *Native* appointees this long.

memoranda.⁷ Of particular note for this Article, the Office of Science and Technology Policy (OSTP) and the Council on Environmental Quality (CEQ), two Nixon and Ford Era offices within the Executive Office of the President,⁸ released a joint memorandum instructing all federal agencies to integrate Indigenous Traditional Ecological Knowledge (ITEK) or Indigenous Knowledge (IK) into agency decision-making.⁹

In case there was any confusion about the nature of the ITEK guidance, an Interagency Working Group on Indigenous Traditional Ecological Knowledge was formed.¹⁰ After some further confusion, a subcommittee, under a committee, within a council, within an office, within the White House, was created to settle any remaining questions once and for all (the Subcommittee on Indigenous Knowledge under the Committee on the Environment, Natural Resources, and Sustainability of the National Science and Technology Council of the Executive Office of the President, perhaps abbreviated as “NSTC-ENRS-IK”).¹¹

⁷ Press Release, The White House, White House Commits to Elevating Indigenous Knowledge in Federal Policy Decisions (Nov. 15, 2021), <https://www.whitehouse.gov/ostp/news-updates/2021/11/15/white-house-commits-to-elevating-indigenous-knowledge-in-federal-policy-decisions/>; *Fact Sheet: Building a New Era of Nation-to-Nation Engagement*, WHITE HOUSE (Nov. 15, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/15/fact-sheet-building-a-new-era-of-nation-to-nation-engagement/>.

⁸ The CEQ was established under President Nixon in 1969. *See Council on Environmental Quality*, Fed. Reg., <https://www.federalregister.gov/agencies/council-on-environmental-quality> (last visited Dec. 23, 2023). The OSTP was established under President Ford in 1976. *See Science and Technology Policy Office*, Fed. Reg., <https://www.federalregister.gov/agencies/science-and-technology-policy-office> (last visited Dec. 23, 2023).

⁹ Memorandum from Eric S. Lander, President’s Sci. Advisor and Dir., Off. of Sci. & Tech. Pol’y & Brenda Mallory, Chair, Council on Env’t Quality, Memorandum for the Heads of Departments and Agencies: Indigenous Traditional Ecological Knowledge and Federal Decision Making (Nov. 15, 2021).

¹⁰ *Id.*

¹¹ Memorandum from Arati Prabhakar, Assistant to the President & Dir., Off. of Sci. & Tech. Pol’y & Brenda Mallory, Chair, Council on Env’t Quality, Memorandum for Heads of Federal Departments and Agencies: Implementation of Guidance for Federal Departments and Agencies on Indigenous Knowledge (Nov. 30, 2022).

Within a year of the 2022 CEQ-OSTP Guidance Memorandum, the Cavalry arrived in the form of a supplementary guidance memorandum which declared that: Yes, Indigenous Knowledge should be integrated into decision-making, but of course, only if it complies with existing requirements for information utilized in agency decision-making, like the Information Quality Act, assessed with easy-to-use criteria like metrics for Transparency, Traceability, Relationality, Clarity, Objectivity, Context, Valuation, Purpose, Integrity, Security, Consent, Respect, Reproducibility, Continuity, and Validation.¹² Further, only recognized tribal government leaders can consent to the use of IK for agencies when that information is promulgated from a recognized tribe.¹³ In other words, as long as Native folks can make their oral histories and traditional knowledge bases look like a peer-reviewed university publication, and flow that information through the proper channels, agencies should consider their input.

According to Vine Deloria Jr., an inimitable Lakota legal and religious scholar who directed the National Congress of American Indians and helped to put Native folks in charge of their own legal destinies,¹⁴ “Orthodox science . . . accepts non-Western traditions [only] to the degree to which they help to bolster the existing and approved orthodox doctrines.”¹⁵ While the 2022 OSTP-CEQ Guidance Memorandum acknowledges that Indigenous Knowledge has been “historically marginalized in scientific communities and excluded from research and academic resources, funding, and other opportunities,”¹⁶ by continuing to impose Western systems of knowing atop Indigenous Knowledge, the Biden administration has all but guaranteed that only those bits of Indigenous Knowledge that

¹² Memorandum from Arati Prabhakar, Assistant to the President & Dir., Off. of Sci. & Tech. Pol’y & Brenda Mallory, Chair, Council on Env’t Quality, Memorandum for Heads of Federal Departments and Agencies: Guidance for Federal Departments and Agencies on Indigenous Knowledge 36–38 (Nov. 30, 2022) [hereinafter OSTP-CEQ Guidance Memorandum].

¹³ *Id.* at 10.

¹⁴ David E. Wilkins, *Vine Deloria Jr. (1933–2005)*, AM. HIST. ASS’N (Mar. 30, 2023), [https://www.historians.org/research-and-publications/perspectives-on-history/april-2023/vine-deloria-jr-\(1933–2005\)](https://www.historians.org/research-and-publications/perspectives-on-history/april-2023/vine-deloria-jr-(1933–2005)).

¹⁵ VINE DELORIA, JR., RED EARTH, WHITE LIES: NATIVE AMERICANS AND THE MYTH OF SCIENTIFIC FACT 32 (1997).

¹⁶ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 5.

are published in concert with Western academics or in a fashion consistent with Western academia have real legs in agency rule-making. Deloria, writing in 1997, observed that “[t]he bottom line about the information possessed by non-Western peoples is that the information becomes valid only when offered by a white scholar recognized by the academic establishment; in effect, the color of the skin guarantees scientific objectivity.”¹⁷ Conventions may have changed, but the contemporary guidance on IK permits only a narrow path for a substantial departure from that same status quo.

So where does that leave tribal governments and Native-serving nonprofits? The Native movement to elevate Indigenous Knowledge has grown over the past few decades, from Vine Deloria’s *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*¹⁸ and Robin Kimmerer’s *Braiding Sweetgrass*,¹⁹ to the *Manoomin* cases,²⁰ and Fourth National Climate Assessment’s historic “Tribes and Indigenous Peoples” chapter.²¹ But as so often occurs, tribal rights have been recognized and validated only to be undermined by legalistic limitations. Delorian cynicism would lead us to believe that there is no opportunity for true understanding and integration of Indigenous Knowledge into agency decision-making. Yet, that same cynicism can actually be tribal governments’ guide for effective implementation of IK messaging. After defining IK and briefly discussing its enduring value and the problems surrounding its implementation in federal decision-making, this Article will seek to advance a strategy for tribal advocates and officials to effectively message agencies regarding their traditional knowledge.

I. DEFINING THE BOUNDS OF IK

One would think that Indigenous Knowledge, or Indigenous Traditional Ecological Knowledge, is easy to define, simply put, as

¹⁷ DELORIA, *supra* note 15, at 35.

¹⁸ *Id.* at xiv.

¹⁹ ROBIN KIMMERER, *BRAIDING SWEETGRASS* x (2013).

²⁰ *Minn. Dep’t of Nat. Res. v. Manoomin*, No. AP21-0516, slip op. at 1 (White Earth Band of Ojibwe Ct. App. Mar. 10, 2022); *Dep’t of Nat. Res. v. White Earth Band of Ojibwe*, No. 21-3050 (8th Cir. Aug. 10, 2022).

²¹ Rachael Novak et al., *Tribes and Indigenous Peoples*, in 2 IMPACTS, RISKS, AND ADAPTATION IN THE U.S.: FOURTH NAT’L CLIMATE ASSESSMENT 572, 584 (Karen Cozzeto ed., 2018).

knowledge held by Indigenous Peoples. According to the Inuit Circumpolar Council (ICC),

Indigenous [K]nowledge is a systematic way of thinking applied to phenomena across biological, physical, cultural and spiritual systems. It includes insights based on evidence acquired through direct and long-term experiences and extensive and multi-generational observations, lessons[,] and skills. It has developed over millennia and is still developing in a living process, including knowledge acquired today and in the future, and it is passed on from generation to generation.²²

The ICC's definition of Indigenous Knowledge is probably consistent with the understanding of most folks. However, this is not the same definition that the federal government is utilizing. According to the guidance memorandum released by OSTP and CEQ,

Indigenous Knowledge is a body of observations, oral and written knowledge, innovations, practices, and beliefs developed by Tribes and Indigenous Peoples through interaction and experience with the environment. It is applied to phenomena across biological, physical, social, cultural, and spiritual systems. Indigenous Knowledge can be developed over millennia, continues to develop, and includes understanding based on evidence acquired through direct contact with the environment and long-term experiences, as well as extensive observations, lessons, and skills passed from generation to generation. Indigenous Knowledge is developed by Indigenous Peoples including, but not limited to, Tribal Nations, Native Americans, Alaska Natives, and Native Hawaiians.

²² *Indigenous Knowledge*, INUIT CIRCUMPOLAR COUNCIL, <https://www.inuitcircumpolar.com/icc-activities/environment-sustainable-development/indigenous-knowledge/> (last visited Sept. 20, 2023).

Each Tribe or Indigenous community has its own place-based body of knowledge that may overlap with that of other Tribes.²³

However, the definition of IK usable in agency decision-making, particularly for “influential” matters, gets narrower and narrower from there.²⁴ While the federal government affirms that “Indigenous Knowledge is a valid form of evidence for inclusion in [f]ederal policy, research and decision making,” and “Indigenous Knowledge and other forms of knowledge do not depend on each other for validation,”²⁵ the same guidance memorandum notes that IK must conform to the Foundations for Evidence-Based Policymaking Act of 2018 and the Information Quality Act of 2000 in order to be adopted by agency rule-makers.²⁶

These constraints add the following to the practical definition of IK usable in federal rule-makings: (1) IK is “tied to a specific location or a specific type of habitat, environmental media, or biological species;”²⁷ (2) can be “substantiate[d]” as “part of a relationship or kinship of people across generations;”²⁸ (3) its “[t]heories, scope, approach, methods, and context is clearly described and any differences in outcomes from those developed using other approaches are discussed;”²⁹ (4) “[t]he information is understood and applied in a way that is respectful to and *consistent* with the cultural, spiritual, and environmental context of the Indigenous Peoples who own it;”³⁰ (5) “[t]he knowledge is used or applied in the assessment in an objective, accurate, clear, complete, and unbiased manner;”³¹ (6) produced in collaboration with “the knowledge holder(s);”³² (7) while retaining “[t]he inherent use and value of the information” and the “lived experience” of the knowledge holders;³³ (8) preserving the

²³ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 4.

²⁴ *See id.* at 20.

²⁵ *Id.* at 4.

²⁶ *Id.* at 20.

²⁷ *Id.* at 36.

²⁸ *Id.*

²⁹ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 36 (a requirement for the implementing agency, not the Tribe).

³⁰ *Id.* at 36–37 (emphasis added).

³¹ *Id.* at 37.

³² *Id.* (emphasis added).

³³ *Id.*

“[l]anguage and names within the information, in which Indigenous Knowledge and values may be nested;”³⁴ (9) “[t]he Indigenous Knowledge is considered through an Indigenous lens, voice, or style and [woven] together with other forms of evidence without converting or forcing the knowledge into non-Indigenous frameworks;”³⁵ (10) “[i]nformation owners granted free, prior, informed consent . . . and maintain control;”³⁶ but that when dealing with members of federally-recognized Tribes, that knowledge should only come from “individual knowledge holders designated by Tribal leadership” and tribal leaders have “grant[ed] consent” for sharing that knowledge;³⁷ (11) that knowledge excludes culturally sensitive information which will likely be subject to Freedom of Information Act requests;³⁸ (12) the author of the written document that the IK is included in has made clear how the information will be protected, including respect for data and knowledge sovereignty;³⁹ critically, (13) “the information consists of *repeated* observations or understandings built and maintained over time and shared or passed down through generations *while maintaining continuous formats*;”⁴⁰ (14) “[p]ractices for ensuring quality control and validation are appropriate to the nature of the source information, as determined by the Indigenous [K]nowledge holders from which the information comes, such as through iterative, equitable dialogue on the interpretation of findings by community members, co-researchers, or collective knowledge systems;”⁴¹ and (15) which are consistent with agency “Evidence-Building Plans” and data “Evaluation Plans.”⁴²

³⁴ *Id.*

³⁵ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 37 (although notably, the very framework in which this attention to not limiting Indigenous Knowledge to un-Indigenous frameworks is highlighted is itself a limiting framework).

³⁶ *Id.*

³⁷ *Id.* at 10.

³⁸ *Id.* at 14–15.

³⁹ *Id.* at 45–46.

⁴⁰ *Id.* at 37 (emphasis added).

⁴¹ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 37–38.

⁴² See Foundations for Evidence-Based Policymaking Act of 2018, Pub. L. No. 115-435, 132 Stat. 5529, 5530–31 (2019); see also *Implementing the Foundations for Evidence-Based Policymaking Act at the U.S. Department of Health & Human Services*, OFF. OF THE ASSISTANT SEC’Y FOR PLAN. AND EVALUATION, <https://aspe.hhs.gov/topics/data/evidence-act-0> (last visited Sept. 21, 2023).

In other words, the production of Indigenous Knowledge or Indigenous Traditional Ecological Knowledge to be used in agency decision-making is a highly bureaucratic process of translating traditional knowledge into a format that fits federal requirements for information quality and evidence management.⁴³

II. PROBLEMS IMPLEMENTING IK

Given the complex process required to generate the package of Indigenous Knowledge that agencies expect, when that information is transmitted to an agency in the process of policy advocacy, it is incumbent upon tribal attorneys to work with tribal political authorities and traditional cultural authorities in order to ensure that the message of a tribe is not thrown out because it does not check the boxes which administrative law requires it to. In addition to the basic Information Quality Act checklist included as Appendix C of the 2022 OSTP-CEQ Guidance Memorandum,⁴⁴ a tribal advocate will be best prepared to package and present Indigenous Knowledge when they also become conversant with the more in-depth Office of Management and Budget Information Quality Guidelines and resulting guidance, which form the expectations of the legal academy and agency rule-makers.⁴⁵ In order to ensure that Indigenous Knowledge ends up considered as “evidence” for agency rule-makings, tribal advocates and officials must deftly thread the needle of preserving the authenticity of traditional knowledge while still complying with the better part of a hundred pages of procedural guidance⁴⁶ while considering an audience of rule-makers Rentrenched in Western academic philosophy.

⁴³ See generally OSTP-CEQ Guidance Memorandum, *supra* note 12, at 13.

⁴⁴ See *id.* at 36–38.

⁴⁵ See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. 8452, 8452–60 (Feb. 22, 2002).

⁴⁶ See OSTP-CEQ Guidance Memorandum, *supra* note 12, at 20; see also Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8452–53; Information Quality Guidelines Pursuant to Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, 67 Fed. Reg. 36642, 36642 (May 24, 2002).

A. *OMB and DOI Information Quality Guidelines*

The Office of Management and Budget was directed by Congress in 2000 through the FY 2001 General Appropriations Act to promulgate government-wide guidance to “ensur[e] and maximiz[e] the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies”⁴⁷ Reluctant to provide “detailed, prescriptive, ‘one-size-fits-all’ government-wide guidelines that would artificially require different types of dissemination activities to be treated in the same manner,” the OMB went on to release a nine-page government-wide guidance in the Federal Register creatively entitled “Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication,” which will be referred to here as the “OMB Information Quality Guidelines.”⁴⁸ This publication further instructed that the Department of Interior promulgate its own Guidelines in a report, which was so published and entitled “U.S. Department of the Interior: Information Quality Guidelines Pursuant to Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001,” which will be referred to herein as the “DOI Information Quality Guidelines.”⁴⁹

For the two decades that have followed, agency rule-makers and solicitors have been stepping in these Guidelines and utilizing them to exclude information from playing a part in agency rule-makings.⁵⁰ While these requirements do not apply directly to tribal input itself, they govern how that input can actually be integrated into agency rule-makings and other publications.⁵¹ The DOI Information Quality Guidelines explicitly note that:

⁴⁷ Treasury and General Government Appropriations Act for Fiscal Year 2001, Pub. L. No. 106-554, 114 Stat. 2763, 154 (2001).

⁴⁸ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8452–60.

⁴⁹ U.S. Dep’t of Interior, *Information Quality Guidelines Pursuant to Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001*, 1 (May 24, 2002), https://www.doi.gov/sites/doi.gov/files/uploads/doi_information_quality_guidelines.pdf.

⁵⁰ See generally *id.* at 3.

⁵¹ See, e.g., *id.* at 5, 9.

[i]f the Department relies upon . . . information submitted or developed by a third party, that information is subject to the appropriate standards of objectivity and utility . . . [i]n instances where the information is relied upon but is not verifiable, the source must be made transparent to the public, and such original information will not be subject to these Information Quality Guidelines.⁵²

That guidance may allow agencies to include Indigenous Knowledge in rule-makings with disclosure of the origin of the knowledge without subjecting it to the full battery of information quality tests, but that information will still be subject to balancing tests which limit agencies' relative reliance on the information in the case of "influential" uses, as will be detailed following.⁵³ These overlapping guidance memoranda thus provide several important considerations for tribal advocates seeking to package and present IK to agencies which can be categorized, according to the text, into considerations of utility, objectivity, and integrity.⁵⁴

1. UTILITY

The OMB Information Quality Guidelines define "utility" as "the usefulness of the information to the intended users."⁵⁵ This is, fortunately, the only category of information quality which is straight-forwardly defined and interpreted, although the Guidelines note that "[i]n assessing the usefulness of information that the agency disseminates to the public, the agency needs to consider the uses of the information not only from the perspective of the agency but also from the perspective of the public" so that "when transparency of information is relevant for assessing the information's usefulness from the public's perspective, the agency must take care to ensure that transparency has been addressed in its review of the information."⁵⁶ The considerations surrounding transparency, and its

⁵² *Id.* at 7.

⁵³ *See id.* at 1, 3, 9–10.

⁵⁴ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8453.

⁵⁵ *Id.*

⁵⁶ *Id.* at 8459.

conflicts with traditional cultural requirements of confidentiality, will be more substantively addressed in the following sections on objectivity and integrity, with which the utility-transparency considerations overlap.

2. OBJECTIVITY

According to the Guidelines, “objectivity” refers to “whether disseminated information is being presented in an accurate, clear, complete, and unbiased manner,” and as a matter of substance, is accurate, reliable, and unbiased.⁵⁷ However, among the guidelines is a “*Presumption Favoring Peer-Reviewed Information*,” which applies in a scientific and research context, but which clearly underlies the considerations of “Appendix C: Example of Approach to Indigenous Knowledge as Source Materials in Highly Influential Scientific Assessments Under the Information Quality Act,” which is appended to the 2022 OSTP-CEQ Guidance Memorandum.⁵⁸

Indeed, honing in on the title of Appendix C of the 2022 OSTP-CEQ Guidance Memorandum leads us to another objectivity consideration included in the OMB Information Quality Guidelines, which asserts that “[t]he more important the information, the higher the quality standards to which it should be held, for example, in those situations involving ‘influential scientific, financial, or statistical information.’”⁵⁹ The OMB elsewhere defines “influential” in context of the phrase “influential scientific, financial, or statistical information” to mean information for which the “dissemination of the information will have or does have a clear and substantial impact on important public policies or important private sector decisions.”⁶⁰ In other words, the more important the rule-making or publication, the less likely the agency is to consider IK not resulting from a “peer-review process” that helps check all the objectivity boxes.

⁵⁷ *Id.*

⁵⁸ *Id.* at 8454 (emphasis in original text); OSTP-CEQ Guidance Memorandum, *supra* note 12, at 36.

⁵⁹ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8452.

⁶⁰ *Id.* at 8455.

Another key measurement of objectivity considered by the OMB Information Quality Guidelines, which is also directly translated into Appendix C of the 2022 OSTP-CEQ Guidance Memorandum, is *reproducibility*.⁶¹ These Guidelines are, of course, designed primarily to accommodate Western science and research. However, in response to comments received on the draft OMB Information Quality Guidelines, the final rule-making makes space by:

acknowledge[ing] that confidentiality concerns will sometimes preclude public access as an approach to reproducibility . . . [and while] making the data and methods publicly available will assist in determining whether analytic results are reproducible . . . the objectivity standard does not override other compelling interests such as privacy, trade secrets, intellectual property, and other confidentiality protections.⁶²

Helpfully, the November 15, 2021 OSTP-CEQ ITEK Memorandum, which preceded the 2022 OSTP-CEQ Guidance Memorandum, does not mince words in affirming that “ITEK is owned by Indigenous people.”⁶³ Nevertheless, this requirement has been translated into the 2022 OSTP-CEQ Guidance Memorandum with subcriteria of “continuity” and “validation,” which expect that IK can be substantiated by a record of “repeated observations or understandings built and maintained over time and shared or passed down through generations while maintaining continuous formats (e.g., oral, written, song, dance, visual formats, etc.)” and

[p]ractices for ensuring quality control and validation are appropriate to the nature of the source information, as determined by the Indigenous Knowledge holders from which the information comes, such as

⁶¹ *Id.* at 8455–57; OSTP-CEQ Guidance Memorandum, *supra* note 12, at 36–38.

⁶² Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8456.

⁶³ Memorandum from Eric S. Lander & Brenda Mallory, *supra* note 9, at 2.

through iterative, equitable dialogue on the interpretation of findings by community members, co-researchers, or collective knowledge systems.⁶⁴

Ensuring “objectivity” under these Guidelines essentially requires a scientific information gathering protocol and a traceable origin of the Indigenous Knowledge to be included in a communique to an agency.

3. INTEGRITY

The OMB goes on to define “integrity” as “the protection of information from unauthorized access or revision, to ensure that the information is not compromised through corruption or falsification.”⁶⁵ The DOI Information Quality Guidelines, which were promulgated subsequent to the OMB Information Quality Guidance, focus on ensuring that “[t]he Department’s methods for producing quality information will be made transparent, to the maximum extent practicable, through accurate documentation, use of appropriate internal and external review procedures, consultation with experts and users, and verification of its quality.”⁶⁶ The DOI Information Quality Guidelines go on to note that, in situations where confidentiality overrides transparency, “the Department shall apply and document especially rigorous robustness checks. In all cases, Departmental guidelines require a disclosure of the specific data sources used and the specific quantitative methods and assumptions employed.”⁶⁷

Further, whenever “analysis of risks to human health, safety, and the environment” are at play, the Department will also integrate the quality principles found in the Safe Drinking Water Act Amendments of 1996 by (1) “[using] the best available science and supporting studies conducted in accordance with sound and objective scientific practices, including peer-reviewed studies where available,” (2) “[using] data collected by standard and accepted methods

⁶⁴ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 37–38.

⁶⁵ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8453.

⁶⁶ U.S. Dep’t of Interior, *supra* note 49, at 1.

⁶⁷ *Id.* at 2.

or best available methods,” and (3) ensuring that the “presentation of information is as comprehensive as possible, informative, and understandable.”⁶⁸ The agency *further* authorized an information quality challenge procedure, providing a sixty-day complaint resolution period, which will allow hostile parties to challenge Indigenous Knowledge even after the agency has decided to include it in their publication or rule-making.⁶⁹

B. *Putting ITEK to Use*

Even if a tribal advocate has succeeded in checking all of the information quality boxes in the 2022 OSTP-CEQ Guidance Memorandum, OMB Information Quality Guidelines, DOI Information Quality Guidelines, and Foundations for Evidence-Based Policymaking Act,⁷⁰ there is still another substantial hurdle which must be surmounted in order for Indigenous Knowledge to be meaningfully integrated into agency decision-making. Namely, agency officials entrenched in Western academia must actually figure out how to use the Indigenous Knowledge, and whether, in their vast discretion as agency officials,⁷¹ they outweigh considerations of Indigenous Knowledge with more familiar Western scientific products as they

⁶⁸ *Id.* at 2–3.

⁶⁹ *Id.* at 4.

⁷⁰ The Foundations for Evidence-Based Policymaking Act was only treated briefly in the “Defining the Bounds of ITEK” section, because it primarily imposes requirements on agency treatment of information, and not on the nature of the information itself. *See infra* Part II; OSTP-CEQ Guidance Memorandum, *supra* note 12, at 20. The law (PL 115-435) creates advisory councils and officers and plan-requirements internal to an agency to manage evidence review and ensure accessibility, and does not in and of itself impose substantive requirements for information in excess of those already imposed by the Information Quality Act and resulting guidance. 132 Stat. at 5530. However, the 2022 OSTP-CEQ Guidance Memorandum notes this law by name, and states that “[a]s relevant and appropriate, Agencies should include Indigenous Knowledge as a form of evidence and consider Indigenous Knowledge throughout evidence life cycles, including in developing priority questions on agency Learning Agendas, in building evidence through inclusive methodologies, such as community-engaged research, and when using evidence to improve government effectiveness.” OSTP-CEQ Guidance Memorandum, *supra* note 12, at 20.

⁷¹ *See Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 844, 865 (1984).

balance the available evidence. A few essential concerns predominate in the use of Indigenous Knowledge by academics or agency officials: (1) subordination of Indigenous Knowledge to Western Knowledge, (2) employment of reductive anthropological techniques to “verify” Indigenous Knowledge,⁷² and (3) misuse of Indigenous Knowledge.

For a decision-maker who has been steeped in the Western scientific field and the long and venerable tradition of Federal Guidance Memoranda, the challenge of giving Indigenous Knowledge weight equivalent to or greater than a thoroughly peer-reviewed scientific study from the established academy is an almost existential one. Many have been inculcated with the idea that “only Western science is ‘true science’ and all other forms of knowledge must be subordinate.”⁷³ Some critics will deride Indigenous Knowledge as “junk science,” in private or in a proud publication.⁷⁴ Even when the parity of Indigenous and Western Knowledge systems has been acknowledged, a decision-maker seeking to “integrate” Indigenous Knowledge into a fundamentally Western worldview and administrative procedure risks “‘mining’ Indigenous Knowledge and using it, often out of context, as ‘data’ for Western science.”⁷⁵

In an effort to “verify” or “validate” the conclusions promulgated by Indigenous Knowledge-ways, decision-makers may resort to tried and true anthropological mechanisms for wrenching “objectivity” from the oral tradition. Without Indigenous leadership, “sophisticated conceptual and methodological approaches,” such as “cultural consensus analysis and participatory mapping” may become the default to classify, prove, or disprove Indigenous Knowledge.⁷⁶ Even when the Indigenous Knowledge is “co-produced” by outside scientists collaborating directly with Indigenous

⁷² See generally VINE DELORIA, JR., CUSTER DIED FOR YOUR SINS 80–81 (1969).

⁷³ Jay T. Johnson et al., *Weaving Indigenous and Sustainability Sciences to Diversify our Methods*, 11 SUSTAINABILITY SCI. 1, 5 (2015).

⁷⁴ FRANCES WIDDOWSON & ALBERT HOWARD, DISROBING THE ABORIGINAL INDUSTRY 242 (2008).

⁷⁵ Johnson et al., *supra* note 73, at 1, 6.

⁷⁶ Courtney Carothers et al., *Introduction: Conceptual, Methodological, Practical, and Ethical Challenges in Studying and Applying Indigenous Knowledge*, 19 ECOLOGY AND SOC’Y 43, 43 (2014).

Knowledge keepers, “fairness, equal standing, [and] . . . power asymmetries” may go unaddressed.⁷⁷

Finally, the misuse of Indigenous Knowledge may be foremost in the minds of many tribal government advocates and officials considering how to disclose their Indigenous Knowledge.⁷⁸ After all, Indigenous Knowledge is often enmeshed in “web[s] of relationships defining who may use it, when it may be used, appropriate uses, and the . . . practices that must accompany its use.”⁷⁹ For example, disclosure of knowledge about medicinal plants may risk overharvesting or use against cultural traditions,⁸⁰ with significant negative implications. This becomes all the more salient in the context of required disclosures under the Freedom of Information Act,⁸¹ and required “transparency” under relevant Information Quality Guidance Memoranda.⁸²

III. GUIDANCE FOR TRIBES SHARING IK

This all begs the question, what are tribal officials and advocates to do when seeking to have Indigenous Knowledge relied upon for agency decision-making, as originally contemplated by the Biden administration’s initial ITEK guidance? The various guidance memoranda discussed in this Article expect Indigenous Knowledge to conform to Western criteria of generation and presentation. In answer, let us cynically assess the narrow and limited nature of orthodox Western Knowledge-ways, just as Deloria did, acknowledge the reality and complexity of Information Quality requirements, and then “package” and present Indigenous Knowledge for agency consumption by building an internal procedure for Indigenous

⁷⁷ Terry Williams & Preston Hardison, *Culture, Law, Risk and Governance: Contexts of Traditional Knowledge in Climate Change Adaptation*, 120 CLIMATIC CHANGE 531, 532 (2013).

⁷⁸ *Id.*

⁷⁹ *Id.* at 534.

⁸⁰ *Id.* at 539.

⁸¹ *See generally* The Freedom of Information Act, 5 U.S.C. § 552.

⁸² U.S. Dep’t of Interior, *supra* note 49, at 8; Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8454; OSTP-CEQ Guidance Memorandum, *supra* note 12, at 36.

Knowledge collection and presentation which is tailored to the expectations of Federal Information Quality Guidelines.

The 2022 OSTP-CEQ Guidance Memorandum expects that Indigenous Knowledge can be “substantiate[d]” as part of a “relationship or kinship of people across generations,”⁸³ produced in collaboration with “the knowledge holder(s),”⁸⁴ preserving the “[l]anguage and names within the information, in which Indigenous Knowledge and values may be nested,”⁸⁵ “[woven] together with other forms of evidence without converting or forcing the knowledge into non-Indigenous frameworks,”⁸⁶ excluding “culturally sensitive information,”⁸⁷ with affirmation of the ownership of the Indigenous Knowledge,⁸⁸ employing “[p]ractices for ensuring quality control and validation are appropriate to the nature of the source information,”⁸⁹ from “individual knowledge holders designated by Tribal leadership,” for which Tribal leaders have granted consent for sharing that knowledge,⁹⁰ and which is composed of “*repeated observations or understandings built and maintained over time and shared or passed down through generations while maintaining continuous formats.*”⁹¹ It is also important to remember that “transparency” may be critical to the “utility” or “integrity” of the information,⁹² and agencies will balance information with a “Presumption Favoring Peer-Reviewed Information.”⁹³

So, as a best practice, and in order to conform to the expectations of federal rule-makers and provide a familiar document, tribal governments, or the leadership of Indigenous tribes or communities

⁸³ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 36.

⁸⁴ *Id.* at 30, 37.

⁸⁵ *Id.* at 37.

⁸⁶ *Id.* (Notably, the very framework in which this attention to not limiting Indigenous Knowledge to un-Indigenous frameworks is highlighted is itself a limiting framework).

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ OSTP-CEQ Guidance Memorandum, *supra* note 12, at 37.

⁹⁰ *Id.* at 10.

⁹¹ *Id.* at 37 (emphasis added).

⁹² Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8453, 8459–60.

⁹³ *Id.* at 8454.

which are not currently extended federal recognition,⁹⁴ are best served by gathering Indigenous Knowledge in an internal forum of knowledge-holders who can provide “peer-review,” who represent a broad swath of the community, and from which a consensus of a tribe can be approximated.⁹⁵ As information quality concerns regarding “verifiability” may arise, tribal governments may be best served by keeping confidential and contemporaneous records, which are available for verification but not reproduction by agency officials.⁹⁶

In an effort to ensure that the Indigenous Knowledge of the Miccosukee Tribe of Indians of Florida was not ignored again by federal policy-makers, the Miccosukee Tribal government has taken an approach like the one described here,⁹⁷ which can be a model for Indigenous Peoples across the nation seeking to jump through all of the hoops created by the various Information Quality rules.

A. *Case Study: Miccosukee Tribe of Indians of Florida’s Statement of Indigenous Knowledge Regarding S-12 A and B Operations*

The Miccosukee are located in the Central and Western Everglades,⁹⁸ a vast river of grass which, in its natural state, was once the widest river in the world and supported a diverse array of life: fish and crayfish teeming below the shallow and clear waters, majestic flocks of wading birds flying by like clouds of wings, and tree islands dotting the landscape which provide refuge for terrestrial mammals in the midst of the great river of grass; the Everglades also

⁹⁴ See Memorandum from Eric S. Lander & Brenda Mallory, *supra* note 9, at 1 (“... including Native Americans, Alaska Natives, Native Hawaiians, and Indigenous peoples of the U.S. territories.”).

⁹⁵ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies; Republication, 67 Fed. Reg. at 8454, 8459.

⁹⁶ See U.S. Dep’t of Interior, *supra* note 49, at 1, 7.

⁹⁷ See *infra* Section III.A.

⁹⁸ *History of the Miccosukee Tribe*, MICCOSUKEE CASINO & RESORT, <https://miccosukee.com/miccosukee-tribe-history/> (last visited Dec. 23, 2023).

played this role for the Miccosukee, whose ancestors avoided removal by the U.S. Cavalry by taking refuge on the tree islands.⁹⁹ For decades since, the Miccosukee Tribe of Indians of Florida has struggled with the water management practices of the S-12 A and B flowgates, planned and executed by the U.S. Army Corps of Engineers and South Florida Water Management District, but constrained by a U.S. Fish and Wildlife Service Biological Opinion, which resulted in consistent flooding of the tree islands on the Tribe's reservation and settlement lands.¹⁰⁰

Designed as a protection of a single species in the ecosystem, the endangered Cape Sable Seaside Sparrow's subpopulation A, the operational schedule of the S-12 A and B flowgates that open along a levee which dams on the southern end of Tribal lands, together with the broader pollution and compartmentalization of the Everglades with approximately 2,000 miles of levees and berms, and over 2,100 miles of canals and culverts scarring the land and water,¹⁰¹ have led to the repeated inundation of Tribal lands and the near-collapse of the local ecosystem.¹⁰²

In order to communicate the significant body of Miccosukee Indigenous Knowledge, which justified a change to the administration of the S-12 A and B flowgates in a manner conducive to agency rule-making, several procedural steps were taken by Tribal advocates and officials. Miccosukee leadership organized the Everglades Advisory Committee, a body of Tribal citizens from different clans and age groups, whose statements represent the consensus view of the Tribal citizenship on environmental matters.¹⁰³ Interviews were then conducted by Tribal legal and environmental staff with the Everglades Advisory Committee, who documented the traditional knowledge of the Committee in a contemporaneous report, the contents of which

⁹⁹ Statement of Indigenous Traditional Ecological Knowledge Regarding S-12 A and S-12 B Structure Operations by Chairman Talbert Cypress 3 (Mar. 28, 2023) [hereinafter Statement of Indigenous Traditional Ecological Knowledge].

¹⁰⁰ *Id.* at 1–2.

¹⁰¹ John P. Mitnik, *How SFWMD Manages Levees in South Florida*, S. FLA. WATER MGMT., https://www.sfwmd.gov/sites/default/files/documents/sfwmd_levee%20presentation.pdf (last visited Sept. 22, 2023).

¹⁰² Statement of Indigenous Traditional Ecological Knowledge, *supra* note 99, at 1–5.

¹⁰³ *Id.* at 1 n.1.

were verified by the knowledge holders.¹⁰⁴ The Chairman of the Miccosukee Tribe of Indians of Florida then issued a letter, summarizing and citing to the findings of the internal report, which has been kept confidential out of concerns for the preservation of the Tribe's cultural knowledge and its continued stewardship by the community. The letter named the members of the Everglades Advisory Committee, described the procedure for data collection in footnotes, and concluded with the purpose for which the Indigenous Knowledge, now gathered and published, should be used.¹⁰⁵ In so doing, the Chairman handed agency rule-makers a document whose compliance with the Federal Information Quality Guidelines cannot be easily challenged.

Taking these steps has ensured that Miccosukee Indigenous Knowledge has not been ignored. Already, in the formulation of the new operational plans for the region's flowgates and procedures as advanced by associated multi-agency working groups, new metrics are being fleshed out by agency scientists and engineers, and considered by rule-makers, to account for tree island and broader ecosystem health impacts from over-inundation, as inspired by the Chairman's letter.¹⁰⁶ By packaging the Miccosukee Indigenous Knowledge in a manner compliant with the relevant Federal Information Quality Guidelines, the Miccosukee Tribe of Indians of Florida has ensured the equitable consideration of its Indigenous Knowledge in agency decision-making.

CONCLUSION

Vine Deloria Jr. may be right: Indigenous Knowledge may never be given fully equivalent treatment to Western Knowledge until it is selectively appropriated by Western scientists and officials.¹⁰⁷ However, tribal advocates, armed with the knowledge of the DOI, OMB, and OSTP-CEQ Guidance Memoranda and their authorizing federal legislation, can package and present Indigenous Knowledge in a

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ Notes on CEPP Operational Plan Eco Sub Team and RECOVER Tree Island Metrics by Edward R. Ornstein (Sept. 1, 2023, Sept. 15, 2023) (on file with author).

¹⁰⁷ *See* DELORIA, *supra* note 15, at 32, 35.

way that agency rule-makers cannot ignore. By making statements of Indigenous Knowledge directly from the offices of tribal leadership and explicitly summarizing the consensus, peer-reviewed origins, and consistent and reliable methodology for gathering the Indigenous Knowledge contained therein, while keeping culturally-sensitive material confidential, and directing agencies to use that information in a specified way, tribal advocates and officials can ensure that their input will be relied upon in rule-making, lest the resulting agency decision be vulnerable to challenge.¹⁰⁸

To avoid even the slightest confusion, this Article is *not* in the business of distinguishing between “valid” or “invalid” Indigenous Knowledge. All Indigenous Knowledge that is the product of an Indigenous community is valid in its own right. But it is hoped that through this Article, tribal advocates and officials may become quickly conversant in Federal Information Quality Guidance as pertinent to sharing of Indigenous Knowledge. By modeling best practices in the sharing of that information, tribal advocates and officials, informed by the expectations and biases of those in the position to make those decisions, can ensure that the Indigenous Knowledge their tribe shares will be more likely to be relied upon in subsequent agency decision-making. In time, careful advocacy may shift agency attitudes sufficiently to prove Deloria’s cynicism about Western attitudes towards Indigenous Knowledge wrong. The Biden administration has opened the door, a door which, with care, tribal advocates can now guide agencies through.

¹⁰⁸ See Administrative Procedure Act, 5 U.S.C. § 706 (for challenges that could arise).