Data Quality Record for Long-Term Performance Goals

Long-Term Performance Goal Text: By September 30, 2026, increase the annual percentage of Office of Research Development (ORD) research products meeting partner needs to 95% from a baseline of 93% in FY 2021.

Corresponding Annual Performance Goal: Percentage of ORD research products meeting partner needs.

Goal Number/Objective: Cross-Agency Strategy 1

NPM Lead: Office of Research and Development (ORD)

1a. Purpose of Long-Term Performance Goal:
This long-term performance goal (LTPG) will allow the Agency to gauge its success in developing and translating research products that support Agency programs. EPA's Office of Research and Development is measuring whether a research product meets its partners' needs in terms of three criteria: quality, usability, and timeliness. A positive trend will demonstrate an increased capacity to develop products that are relevant in environmental and regulatory decision-making, consistent with Agency priorities.

1b. Performance Measure Term Definitions:
<u>Quality:</u> The extent to which a research product meets scientific and technical standards, is rigorous and transparent, and advances the state of knowledge for a particular topic. A product is high quality if:

(1) It was developed in accordance with ORD science and data policies, including but not limited to quality assurance and peer review.
(2) It is peer reviewed and published by the broader scientific community.
(3) It is sufficiently rigorous and transparent to support EPA regulatory and non-regulatory work.

<u>Usability</u>: The degree to which a research product is suited for and easily applied to actions within EPA's mission. A product is highly usable if:

(1) It provides information relevant to partner decisions or actions. The product informs the Agency and partners on scientific uncertainties, risk interpretations and future data needs.
(2) The product, along with key data and source material, is readily accessible to the intended audience.
(3) Sufficient engagement and support are provided to the intended partner to allow for full applicability.

<u>Timeliness</u>: Whether a product is delivered within a timeframe appropriate for partners' use. A product is considered timely if the product was delivered to the partner within the desired timeframe.

<u>Product</u>: A product is a deliverable that results from a specific research project or task and is meant for use by an ORD partner. This can include one of many scientific deliverables. These include journal articles, Agency reports, software tools, databases, and more.

<u>Partner</u>: Partners are key users of ORD research products who were closely engaged during product development and delivery. ORD's partners include individuals working in federal and non-federal positions such as EPA national program offices and regions, partner agencies, tribes, and states.

1c. Unit of Measure
The percentage of research products meeting partner needs.

2a. Data Source:

- Products that are evaluated are selected from those listed in ORD's Research Approval Planning Implementation Dashboard (RAPID), which is an information collection and sharing system that is integrated with other ORD information systems and captures what ORD plans to produce and assist researchers in tracking journal articles, assessments, tools/models, reports, and other products that ORD develops. Each year, a randomly selected sample of products that are listed in this database will be evaluated through the long-term performance goal evaluation framework. The universe of products completed annually will vary each fiscal year and the selected sample size is 50. If there are 50 or fewer products that have been delivered during the fiscal year, then all products will be evaluated. Data for the products listed in this system are stored in RAPID and will be gathered through a partner survey (which is described further in the Calculation Methodology section). For a given fiscal year's reporting cycle, products from the prior year are evaluated (meaning FY 2022 reporting includes products delivered in FY 2021).
- Product-level data are reported by the Centers that are responsible for the development of these products.
- Data that are reported on an annual basis through End-of-Year Reporting will be aggregated at the annual level (i.e., "The number of products produced in FY 20XX that meet partner needs").

2b. Data needed for interpretation of (calculated) Performance Result:

- The long-term performance goal baseline was determined by the results of the FY 2021 Strategic Measure survey that resulted in 93 percent of products meeting partners' needs. Targets for subsequent years were set based on a gradual glide path increase for performance results.
- Results are reported annually at the Agency level.
- The full universe of products includes all deliverables that are listed in RAPID, see above for details on the database.

3. Calculation Methodology:
The performance result is calculated using a series of indicators that branch off each of the three components of the long-term performance goal (quality, usability, and timeliness). These indicators outline how well the product fulfills these three qualities. Each of the indicators are weighted and scored so that the sum of all indicators equals 100. Each product, then, will be scored by ORD evaluation staff on a 100-point scale. This 100-point scale is calculated as follows: 30 points for product quality, 50 points for usability, and 20 points for timeliness. A product is determined to "meet partner's needs" if its score exceeds a minimum acceptable threshold established by ORD leadership, set at 85 points. The number of products that meet partner needs is the sum of products that are scored greater than or equal to 85 out of 100.

Data that feed this scale are collected from two main sources: internal to ORD data collection and partner surveys. The internal data collected for each product fulfills most data requirements for the indicators for quality and timeliness scores. This includes product completion and delivery dates relative to ORD expectations and peer review and technical clearance information. The usability score (and some quality and timeliness) data are collected via partner surveys. Usability-related questions address whether a product is easily understood by the user and used in its intended form, quality questions address the scientific rigor of the products, and timeliness questions address the delivery of products relative to partner needs. The partner surveys are distributed to known users of the products via an online tool. The survey includes questions regarding the user's opinions about the product's overall usability and other characteristics that can inform a determination regarding the product's relevance to the partner's needs. 70 of the 100 points for the product score are derived from questions in the survey.

4. Quality Assurance/Quality Controls:

Representatives from ORD's research centers participate in a data QA and review process each year throughout the evaluation cycle to support annual reporting. Each evaluation cycle can be broken down into four phases that requires QA/QC steps be taken to ensure the integrity of both the survey and its analysis, the phases include product identification, product user identification, survey, and data analysis.

- Product identification: The QA/QC process begins during product selection when steps are taken to ensure that all product delivery data have been fully updated. For this phase, each Center will first evaluate all products that were scheduled for delivery during the relevant fiscal year by ensuring the planned delivery of that fiscal year's products have complete entries in RAPID, the "Date Delivered" has been completed for products delivered to National Program Directors (NPDs), and the "Updated Planned Delivery Date" has been completed in RAPID for products that have not been delivered to NPDs. The NPDs will then ensure that a product has in fact been delivered. For those products that have been certified as being delivered, the NPD will verify that it is ready for the partner, and then delivered to the partner in its final form. Following these steps, the Centers and NPDs will then verify if products should be included in the survey based on specific exclusion criteria.
- Product user identification: Each Center is asked to provide at least 5 survey recipients for each product that is being assessed. Each recipient is expected to be qualified to respond regarding the product that they were selected to respond about based on specific criteria. The survey recipient list will then be vetted by the NPDs and EPA's Office of Science Advisor, Policy and Engagement (OSAPE), EPA national program offices and regions, and the State and Tribal Liaison group. Once the survey respondent list is finalized, the final step includes an initial engagement email that is sent to respondents to confirm that they are a user for the product and are willing to participate in the survey.
- Survey period: This phase represents the open period of the survey. All survey respondents are provided with a single point of contact for any survey questions or concerns. This individual responsibility is to help ensure that all respondents can provide an adequate response to each survey question. Additionally, to increase the data quality survey reminder notifications are sent to respondents to maximize the survey response rate.
- Data analysis: Immediately after the survey period closes, the data analysis begins. Of the 30 quality points described in the calculation methodology, 20 quality points comes from a product being reported as cleared in the EPA Scientific and Technical Information Clearance System (STICS). Each product is cross-referenced with data in STICS to ensure they went under peer-review and were properly cleared. Any discrepancies found concerning a product in STICS will be addressed by working with the ORD Center that oversaw its development. If for some reason a product does not have a STICS clearance date associated with it, then steps are taken to verify if

the product was eligible to forego clearance. If a product should have indeed cleared STICS prior to being delivered, then the product will not be awarded the 20 quality points and be identified as not meeting the partner needs. In addition to assessing quality points, each survey response is validated to ensure that it was answered completely and is not a duplicate response. Responses that were deemed incomplete or a duplicate will be nullified. If a response was a duplicate, then the most recent response will be accepted.

5. Data Limitations/Qualifications:
The quality of the data is constrained by the survey response rate. EPA assumes that all respondents are actual users of the product they are evaluating and can provide an adequate response.

6. Technical Contact:
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7. Certification Statement/Signature:

I certify the information in this DQR is complete and accurate.

PDAA Signature _Original signed by Maureen Gwinn__ **Date**__4/30/2024__