E. Scott Pruitt
Administrator

May 9, 2018

MEMORANDUM

SUBJECT: Back-to-Basics Process for Reviewing National Ambient Air Quality Standards

FROM: E. Scott Pruitt

TO: Assistant Administrators

The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA or Agency) to periodically review the National Ambient Air Quality Standards (NAAQS), including both primary and secondary standards,[1] for criteria air pollutants to ensure these standards reflect the best, current scientific information while protecting public health and the environment. CAA Sections 108 and 109 describe that these reviews depend on the development, assessment, and evaluation of scientific information by EPA, and, in turn, advice from the Agency's independent Clean Air Scientific Advisory Committee (CASAC). The development of key, policy-relevant assessments for the NAAQS review process should be led by the Office of Air and Radiation, with key scientific inputs in the early stages of a review provided by the Office of Research and Development. Because of the potentially significant impacts of a NAAQS revision on economic activity, state agency planning resources, public health, and the environment, it is important that these reviews are completed in a timely, efficient, and transparent manner. In this memorandum, I set out the following five principles for EPA to observe in future NAAQS reviews:

(1) Meet statutory deadlines;
(2) Address all CAA provisions for NAAQS reviews;
(3) Streamline and standardize the process for development and review of key policy-relevant information;
(4) Differentiate science and policy judgments in the NAAQS review process; and

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[1] 42 U.S.C. § 7409(b)(1) defines primary standards as "ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health." 42 U.S.C. § 7409(b)(2) defines secondary standards as specifying "a level of air quality the attainment and maintenance of which in the judgment of the Administrator, based on such criteria, is requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air." 42 U.S.C. § 7602(h) states that "[a]ll language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants."

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(5) Issue timely implementation regulations and guidance.

The principles contained in this memorandum will help EPA meet its statutory obligations consistent with our commitment to cooperative federalism and the rule of law as well as President Trump's Memorandum on *Promoting Domestic Manufacturing and Job Creation—Policies and Procedures Relating to Implementation of Air Quality Standards*.[2] This Back-to-Basics process ensures that EPA is addressing—and CASAC is providing advice on—the scientific questions Congress intended to inform the Administrator's review, revision, and implementation of the NAAQS. In addition, although some of these changes in the NAAQS review process may not be directly relevant to EPA's judgments on the appropriate indicator, averaging time, form, and level for the NAAQS, they will provide critical technical and policy context for the public, co-regulators, and EPA as they implement these standards. These principles build upon previous EPA NAAQS review memoranda issued December 7, 2006,[3] and May 21, 2009.[4]

As EPA evaluates whether to reconsider, modify, or maintain the 2015 ozone NAAQS,[5] I am directing Agency staff to begin the next review of the ozone NAAQS so EPA will be ready to finalize any necessary revisions by the statutorily required five-year deadline (October 2020). EPA shall move forward to open the docket and publish *Federal Register* notices calling for scientific and policy-relevant information and requesting nominations for the CASAC ozone review panel. This should be done in a manner consistent with the principles set forth in the October 31, 2017 directive on *Strengthening and Improving Membership on EPA Federal Advisory Committees*[6] and EPA should ensure that the panel has the necessary expertise to carry out these principles. EPA also intends to conduct the already initiated review of the particulate matter NAAQS[7] in such a manner as to ensure that any necessary revisions to

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[2] 83 Fed. Reg. 16,761 (April 12, 2018).

[3] Memorandum from Marcus Peacock, Deputy Administrator, to George Gray, Assistant Administrator for Research and Development, and Bill Wehrum, Acting Assistant Administrator for Air and Radiation, *Process for Reviewing National Ambient Air Quality Standards* (December 7, 2006) available at: https://www3.epa.gov/ttn/naaqs/pdfs/memo_process_for_reviewing_naaqs.pdf.

[4] Memorandum from Lisa Jackson, Administrator, to Elizabeth Craig, Acting Assistant Administrator for Air and Radiation, and Lek Kadeli, Acting Assistant Administrator for Research and Development, *Process for Reviewing National Ambient Air Quality Standards* (May 21, 2009) available at: https://www3.epa.gov/ttn/naaqs/pdfs/NAAQSReviewProcessMemo52109.pdf. For more historical information on the NAAQS review process, *see*: https://www.epa.gov/naaqs/historical-information-naaqs-review-process.

[5] 79 Fed. Reg. 71,764. *See also* 80 Fed. Reg. 65,291.

[6] Directive from E. Scott Pruitt, Administrator, *Strengthening and Improving Membership on EPA Federal Advisory Committees* (Oct. 31, 2017) available at: https://www.epa.gov/sites/production/files/2017-10/documents/final_draft_fac_directive-10.31.2017.pdf. *See also* Memorandum from E. Scott Pruitt, Administrator, to Assistant and Regional Administrators and Office of General Counsel, *Strengthening and Improving Membership on EPA Federal Advisory Committees* (Oct. 31, 2017) available at: https://www.epa.gov/sites/production/files/2017-10/documents/final_draft_fac_memo-10.30.2017.pdf.

[7] 80 Fed. Reg. 87,933.

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that NAAQS are finalized by December 2020. EPA should seek to identify efficiencies in the simultaneous review of these two important criteria pollutants. These principles shall apply to all aspects of the review of the ozone NAAQS as well as future NAAQS review. For reviews that have already begun, EPA shall apply these principles as appropriate.

EPA and CASAC shall strive to follow these five principles as the Agency conducts NAAQS reviews:

Principle 1: Meet Statutory Deadlines

The CAA requires EPA to review each NAAQS every five years.[8] However, EPA has often failed to do so, routinely taking twice that time before finalizing a review and any accompanying revision. These delays result in uncertainty as well as lost opportunities for implementing the NAAQS to protect the environment in a manner compatible with a robust American economy. CASAC has previously expressed support for the goal of expediting the process so that it is completed within the five-year review cycle, noting that "the Agency is perpetually caught in a bind of needing to 'hurry things along' in order to meet a court-ordered deadline or consent decree"[9] and that "any slippage in schedules" for key steps in the review process "may jeopardize the quality of CASAC's input."[10] EPA and CASAC shall look for efficiencies and opportunities to streamline the NAAQS review process to ensure that they finish within a five-year interval. For the next review of the ozone NAAQS, EPA shall seek efficiencies through replacing the kick-off workshop with a more robust request for information, and shall consider combining its integrated science, risk and exposure, and policy assessment into a single review.[11] If these efficiencies are successful, EPA should follow this practice for future NAAQS reviews.

Principle 2: Address All CAA Provisions for NAAQS Reviews

Section 109(d)(2) of the CAA clearly identifies the roles and responsibilities of CASAC in providing important advice in the review of air quality criteria published under Section 108 and the NAAQS review process, including:

- Recommending any new NAAQS or revisions of existing criteria and standards as may be appropriate;
- Advising the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised NAAQS;

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[8] 42 U.S.C. § 7409(d)(1).

[9] Letter from Dr. Rogene Henderson, Chair, CASAC, to Stephen L. Johnson, Administrator (July 18, 2006) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/CASAC-July-18-2006/$File/CASAC-07-18-06.pdf.

[10] Letter from Dr. Jonathan M. Samet, Chair, CASAC, to Stephen L. Johnson, Administrator (December 16, 2008) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/Samet-NAAQSLtr-12-16-08/$File/Samet-NAAQS-12-16-08.pdf.

[11] This process differs from EPA's May 21, 2009 memorandum *Process for Reviewing National Ambient Air Quality Standards* in order to achieve more timely reviews. *See supra* note 4.

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- Describing research efforts necessary to provide the required information;
- Advising the Administrator of the relative contribution to air pollution concentrations of natural as well as anthropogenic activity; and
- Advising the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such NAAQS.

In many reviews, EPA has not followed all of the provisions of CAA Section 109(d)(2)(C). The Government Accountability Office has found that "CASAC has never provided advice on adverse social, economic, or energy effects related to NAAQS because EPA has never asked CASAC to do so."[12] CASAC itself has expressed willingness to provide such advice to the Agency upon request. CASAC has also noted that previous EPA assessments have not always been clear "as to how background estimates might impact the primary and secondary standards."[13] EPA and CASAC have noted conflicting decisions regarding the role of background pollution, attainability, and technological feasibility in the NAAQS-setting process.[14]

CASAC advice on some of these topics may not be directly relevant to EPA's process of setting primary and secondary standards that are "requisite" to protect public health and welfare. But although the Supreme Court has held that the Agency may not consider the costs of implementation when reviewing and revising the standards,[15] the Court did note that CASAC's "advice concerning certain aspects of 'adverse public health . . . effects' from various attainment strategies is unquestionably pertinent" to the NAAQS rulemaking record and relevant to the standard-setting process.[16] Notably, the CAA does not require the Administrator to establish a primary NAAQS at a zero-risk level or at background concentration levels,[17] but rather at a level that reduces risk sufficiently so as to protect public health with

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[12] U.S. Govt. Accountability Office Report to Congressional Requestors, *EPA's Science Advisory Board: Improved Procedures Needed to Process Congressional Requests for Scientific Advice* (June 2015) available at: https://www.gao.gov/assets/680/670647.pdf.

[13] CASAC Review of the EPA's Second Draft Policy Assessment for the Review of the Ozone National Ambient Air Quality Standards, EPA-CASAC-14-004 (June 2014). (Deliberating on how to respond to public comment on high background levels in the Intermountain West, CASAC cited prior court decision relating to the role of background in standard setting, and noted that "the Second Draft PA was silent as to how the EPA intends to navigate between these . . . legal guidelines when considering background ozone in a policy and standard-setting context.")

[14] *See American Petroleum Institute v. Costle*, 665 F.2d 1176, 1185 (D.C. Cir. 1981) ("Attainability and technological feasibility are not relevant considerations in the promulgation of national ambient air quality standards."). *See also Am. Trucking Ass'ns v. EPA*, 283 F.3d 355, 379 (D.C. Cir. 2002) ("relative proximity to peak background ozone concentrations" are a factor EPA could consider when choosing among alternative levels).

[15] *See generally Whitman v. American Trucking Assns.*, 531 U.S. 457 at 465-72, 475-76 (2001) (hereinafter *Whitman*).

[16] *Whitman*, 531 U.S. at 470 n.2.

[17] *Lead Industries Association v. EPA*, 647 F.2d 1130, 1156 n.51 (D.C. Cir. 1980).

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an adequate margin of safety. The selection of any particular approach to providing an adequate margin of safety is a policy choice left specifically to the Administrator's judgment.[18]

Advice from CASAC on these issues would inform EPA's decisions on reviewing, revising, and implementing the NAAQS, as well as provide important policy context for the public, co-regulators, and the Agency.[19] The Supreme Court has also observed that the provisions of CAA Section 109(d)(2)(C)(iv) "enable the Administrator to assist the States in carrying out their statutory role as primary *implementers* of the NAAQS."[20] Recent NAAQS reviews also show that EPA has inconsistently sought, and CASAC has inconsistently provided, advice on the relative contribution of natural and anthropogenic activity as well as other requirements in CAA Section 109(d)(2)(C). It should come as no surprise that many state environmental agencies have sought this advice, citing the "absolute need for a valid source of information about background concentrations,"[21] as well as the need for this technical assistance in developing state implementation plans and understanding inter-pollutant tradeoffs.[22]

In order to address the provisions of CAA Section 109(d)(2)(C), EPA intends to provide a standardized set of key questions to CASAC to frame the entirety of the NAAQS review.[23] CASAC has stated that "attention by EPA to the formulation and clarity of charge questions will result in a better focus of the

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[18] *Id.* at 1161-62; *cf. Whitman*, 531 U.S. at 495 (Breyer, J., concurring in part and concurring in the judgment) ("The statute also permits the Administrator to take account of comparative health risks," and a "rule likely to cause more harm to health than it prevents is not a rule that is 'requisite to protect the public health.'").

[19] As noted above, some aspects of CASAC advice may not be relevant to EPA's process of setting primary and secondary standards that are requisite to protect public health and welfare. Indeed, were EPA to consider costs of implementation when reviewing and revising the standards "it would be grounds for vacating the NAAQS." *Whitman*, 531 U.S. at 471 n.4. At the same time, the CAA directs CASAC to provide advice on such matters to the Administrator. 42 U.S.C. § 7409(d)(2)(C).

[20] *Whitman*, 531 U.S. at 470.

[21] Comment submitted by L. David Glatt, Chief, Environmental Health Section, North Dakota Department of Health et al., ID: EPA-HQ-OAR-2008-0699-2570 (March 17, 2015) available at https://www.regulations.gov/document?D=EPA-HQ-OAR-2008-0699-2570.

[22] Letter from Peggy Hatch, Louisiana Department of Environmental Quality, to Senator David Vitter, RE: *Views on the CASAC Process* (May 27, 2014) available at: https://web.archive.org/web/20150110124050/http:/www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=78659f58-83aa-4c06-9832-86d90efb0b7d; Letter from Chairman Bryan Shaw, Texas Commission on Environmental Quality, to Senators Vitter, Cornyn, Inhofe, Sessions, and Scott (May 23, 2014) available at: https://web.archive.org/web/20150110123616/http:/www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=e3c917db-ccf9-4c22-8d8b-d783458fd5fe.

[23] This process differs from EPA's May 21, 2009 memorandum *Process for Reviewing National Ambient Air Quality* as well as recent NAAQS reviews in order to standardize the advisory process, consistent with the CAA. *See supra* note 4.

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review process on the key policy-relevant issues."[24] In conducting its thorough review of the air quality criteria, which "shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities,"[25] EPA and CASAC should not unduly narrow the scope of "identifiable effects" to be considered in that review. Therefore, the overarching charge questions should be broad and inclusive while focusing on the critical questions that are central to decisions on the standards. Specifically, EPA intends to pose the following charge questions to CASAC throughout the NAAQS review process, supplementing these questions with more detailed requests as necessary:

- What scientific evidence has been developed since the last review to indicate if the current primary and/or secondary NAAQS need to be revised or if an alternative level or form of these standards is needed to protect public health and/or public welfare?[26] Please recommend to the Administrator any new NAAQS or revisions of existing criteria and standards as may be appropriate. In providing advice, please consider a range of options for standard setting, in terms of indicators, averaging times, form, and ranges of levels for any alternative standards, along with a description of the alternative underlying interpretations of the scientific evidence and risk/exposure information that might support such alternative standards and that could be considered by the Administrator in making NAAQS decisions.
- Are there areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised NAAQS? Please describe the research efforts necessary to provide the required information.
- What is the relative contribution to air pollution concentrations of natural as well as anthropogenic activity? In providing advice on any recommended NAAQS levels, please discuss relative proximity to peak background levels.[27]*
- Please advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such NAAQS.*
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[24] Letter from Dr. Jonathan M. Samet, Chair, CASAC, to Stephen L. Johnson, Administrator (December 16, 2008) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/Samet-NAAQSLtr-12-16-08/$File/Samet-NAAQS-12-16-08.pdf.

[25] 42 U.S.C. § 7408(a)(2).

[26] Letter from Dr. Rogene Henderson, Chair, CASAC, to Stephen L. Johnson, Administrator (May 12, 2006) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/CASAC-05-12-06/$File/CASAC-05-12-06.pdf.

[27] In accordance with the President's *Memorandum on Promoting Domestic Manufacturing and Job Creation—Policies and Procedures Relating to Implementation of Air Quality Standards* (83 Fed. Reg. 16,761), this discussion may include whether a state's ability to attain the NAAQS may be affected by international transport of criteria pollutants as well as a relevant assessment of background concentrations and sources of pollution outside of the control of state and local air agencies, including current and future trends in pollution from foreign sources and regional trends in exceptional events.

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- Do key studies, analyses, and assessments which may inform the Administrator's decision to revise the NAAQS properly address or characterize uncertainty and causality? Are there appropriate criteria to ensure transparency in the evaluation, assessment and characterization of key scientific evidence for this review?[28]

*These charge questions may elicit information which is not relevant to the standard-setting process, but provides important policy context for the public, co-regulators, and EPA.

EPA should examine an appropriate mechanism, including opportunities after CASAC has provided its final advice on the standards, to facilitate robust feedback on background pollution and adverse NAAQS implementation effects. Appropriate mechanisms to facilitate advice on these issues might include:

- Inclusion of related material in EPA assessments, where appropriate;
- CASAC review of the regulatory impact analysis accompanying any proposed revision to the NAAQS, as this analysis will likely include some discussion of health, welfare, social, economic, and energy effects; and/or
- CASAC review of timely issued implementation rules or guidance accompanying any final revision to the NAAQS.

Principle 3: Streamline and Standardize the Process for Development and Review of Key Policy-Relevant Information

EPA's Integrated Science Assessments (ISA), Risk and Exposure Assessments (REA), and Policy Assessments (PA) should focus on policy-relevant science and on studies, causal determinations, or analysis that address key questions related to the adequacy of primary and secondary NAAQS, including levels near—both above and below—the current standard(s). Policy-relevant science may also include information that directly relates to the indicator, averaging time, form, and level of a NAAQS as well as alternative policy approaches. CASAC has previously recommended that "policy-relevant considerations be developed earlier" in the NAAQS review process[29] and noted that "the vast majority of the reported studies are not relevant to the setting of the standard, either because they have not been published since

[28] For example, *see* Letter from George Wolff and Roger McClellan, Chairmen, CASAC, to Carol Browner, Administrator, *Data Sets for PM_{10}* (May 16, 1994) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/A0D2AE11E6AD6E44852571BD00581CE8/$File/PM10+DATA+SETS++CASAC-COM-94-005_94005_4-27-1995_38.pdf.

[29] Letter from Dr. Jonathan M. Samet, Chair, CASAC, to Stephen L. Johnson, Administrator (December 16, 2008) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/Samet-NAAQSLtr-12-16-08/$File/Samet-NAAQS-12-16-08.pdf.

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the previous NAAQS were set or because they were conducted at concentration levels so high as to be irrelevant to the consideration of a public-health- or public-welfare-based environmental standard."[30]

The Agency shall identify more efficient ways to conduct a thorough scientific assessment of the relevant air quality criteria for each review, focusing on comprehensive synthesis of the relevant science for each pollutant.[31] CASAC has frequently identified reducing the length and complexity of the ISA as a key process improvement for streamlining NAAQS reviews. Specifically, recent advances in information sciences and EPA's Health and Environmental Research Online (HERO) database have made it possible to quickly identify the evidence most likely to influence a NAAQS review. EPA should consider focusing that review on the synthesis chapter, and relying for the other aspects of the process on the request for information process as well as CASAC expertise in identifying gaps or key studies. As CASAC has noted, the members of the pollutant-specific panels are "carefully selected for their cutting-edge knowledge… and therefore already familiar with the key studies that are related to EPA's standards-setting process."[32] While EPA should incorporate insights and feedback from other Federal agencies when appropriate during NAAQS reviews, this memorandum updates EPA policy to not require specific outreach to agencies.[33]

In developing additional analyses in the REA or elsewhere, EPA should focus on policy-relevant information which incorporates appropriate thresholds and/or background levels for context. The PA represents an EPA-wide perspective to help "bridge the gap" between scientific assessment and the judgments required of the Administrator in determining whether to retain or revise standards. As in the past, the PA should "describe a range of options for standard setting, in terms of indicators, averaging times, form, and ranges of levels for any alternative standards, along with a description of the alternative underlying interpretations of the scientific evidence and risk/exposure information that might support such alternative standards and that could be considered by the Administrator in making NAAQS decisions."[34] Written in plain English, this document will be released for CASAC review and public

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[30] Letter from Dr. Rogene Henderson, Chair, CASAC, to Stephen L. Johnson, Administrator (May 12, 2006) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/CASAC-05-12-06/$File/CASAC-05-12-06.pdf.

[31] CASAC Review of the EPA's Integrated Science Assessment for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter – Ecological Criteria, EPA-CASAC-17-004, (First External Review Draft – February 2017) ("The CASAC finds that reducing the length of the Draft ISA and Executive Summary would make the document more accessible.").

[32] Letter from Dr. Rogene Henderson, Chair, CASAC, to Stephen L. Johnson, Administrator (July 18, 2006) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/CASAC-July-18-2006/$File/CASAC-07-18-06.pdf.

[33] This process differs from EPA's May 21, 2009 memorandum *Process for Reviewing National Ambient Air Quality Standards* in order to achieve more timely reviews. *See supra* note 4.

[34] Memorandum from Marcus Peacock, Deputy Administrator, to George Gray, Assistant Administrator for Research and Development, and Bill Wehrum, Acting Assistant Administrator for Air and Radiation, *Process for*

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comment. This process will help ensure that, consistent with EPA's commitment to cooperative federalism, states, tribes, and local governments, who have "direct concerns regarding the protection of their citizens" and who "must also shoulder the burden of implementing NAAQS," have an opportunity to provide feedback prior to any proposed revision of the NAAQS.[35]

EPA should strive to ensure that initial drafts of all documents are sufficiently robust and complete to serve as adequate vehicles for review from both the CASAC and the public, and CASAC should strive to focus on significant comments for these drafts to avoid multiple draft reviews whenever possible. EPA focus on providing CASAC with assessments and chapters succinctly reflect the most salient information, and CASAC focus on providing clear scientific, not editorial, advice, will prevent the inefficiency of what one former CASAC Chair called a "ping-pong" review process with review of multiple drafts.[36] The Agency should seek additional efficiencies in each step in the review process (shown as a schematic in Figure 1), redesigning those steps as needed, and utilizing, in the most efficient manner possible, only those steps that add value in a particular review.

Reviewing National Ambient Air Quality Standards (December 7, 2006) available at: https://www3.epa.gov/ttn/naaqs/pdfs/memo_process_for_reviewing_naaqs.pdf.

[35] Letter from Marcus Peacock, Deputy Administrator, to Dr. Rogene Henderson, Chair, CASAC (Sep. 8, 2008) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/CASAC_09-08-08/$File/CASAC%20Letter%20to%20Dr%20Rogene%20Henderson.pdf.

[36] Comment, Dr. Rogene Henderson, Chair, CASAC (March 6, 2006) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/Vanessa%20Memo_03-16-06/$File/sabso-casac_memo_and_comments.pdf.

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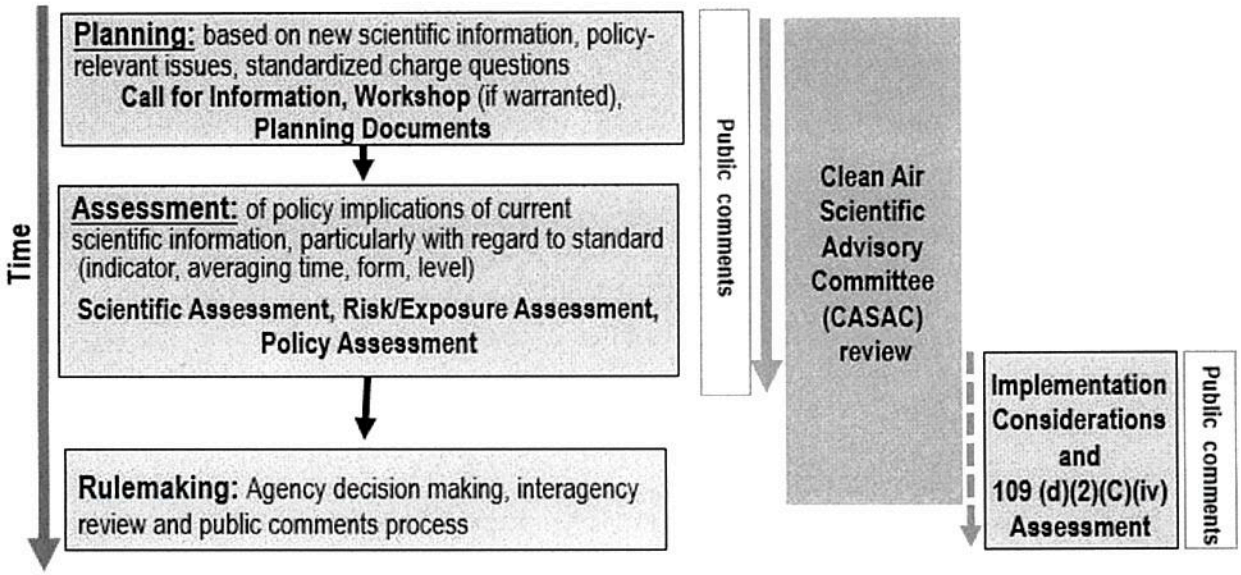
Figure 1. Schematic of the steps associated with a streamlined and efficient NAAQS review.



Principle 4: Differentiate Science and Policy Considerations in NAAQS Review Process

Section 109 of the CAA provides a framework for timing of NAAQS reviews and the role of CASAC in the review process. However, at the end of the process, the law directs the EPA Administrator to make the final decision as to whether a particular standard is requisite or needs to be revised. The Agency should establish a clearer distinction between the purely scientific findings of the ISA and the wider range of policy concerns that the Administrator must consider in making judgments about requisite standards. In addition, EPA should request CASAC to distinguish clearly between its scientific and policy advice, and to focus on core questions when providing advice to the Administrator under the Clean Air Act. CASAC and EPA should, consistent with CASAC's charter, seek to find consensus, but should allow for individual CASAC members to share their own individual opinions when they fall outside committee consensus.[37] Like the key charge questions that should be answered throughout a NAAQS review,

[37]Letter from Dr. Rogene Henderson, Chair, CASAC, to Stephen L. Johnson, Administrator (July 18, 2006) available at: https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/CASAC-July-18-2006/$File/CASAC-07-18-06.pdf. ("When the CASAC thinks that the science presented in a particular document is adequate for rulemaking, it will affirmatively state so in the closing paragraph of the final letter to the Administrator regarding the review of that document. (As stated in the 1979 memo, this does not mean that minority opinions do not exist, and, when necessary, individual members are permitted to document these.)")

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participants in the NAAQS-setting process should be "continually reminded of the need for distinguishing between scientific evaluation and policy decisions."[38]

Principle 5: Issue Timely Implementation Regulations and Guidance

When a NAAQS is revised, the Agency should, where appropriate and consistent with law, provide concurrently with the finalization of that revision implementation regulations and guidance, as well as technical information to assist state co-regulators in developing approvable plans intended to show how any new NAAQS is to be attained and maintained.[39] In the past, EPA implementation regulations and guidance have often trailed NAAQS revisions by years, which may hinder co-regulators from completing the required steps to administer the NAAQS at the state level.[40] Failure to issue timely implementation regulations and guidance may contribute to nonattainment areas not attaining the NAAQS as quickly as practicable, as well as the misallocation of state planning resources. These rules and guidance should provide information relevant to the submission and consideration of state implementation plans and preconstruction permit applications, and may address potential tools for regulatory relief to address background concentrations and sources of pollution outside of the control of state and local air agencies.

The NAAQS review process is one of the fundamental and most significant elements of the EPA's core mission to guarantee clean air for all Americans. Using the five governing principles listed above, the Agency is recommitting itself to a review process that protects public health and the environment, and is timely, complete, based on transparent information, balanced with respect to policy and science, and determined to inform our state partners with the information needed to enact any revisions to the NAAQS.

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[38] NAAQS Process Report, Attachment 3-B (March 2006) available at: https://www3.epa.gov/ttn/naaqs/pdfs/naaqs_process_report_march2006_attachments.pdf.

[39] *See* 83 Fed. Reg. 16,761 (April 12, 2018).

[40] EPA, Final Report on Review of Agency Actions that Potentially Burden the Safe, Efficient Development of Domestic Energy Resources Under Executive Order 13783 (Oct. 25, 2017) available at: https://www.epa.gov/sites/production/files/2017-10/documents/eo-13783-final-report-10-25-2017.pdf.

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