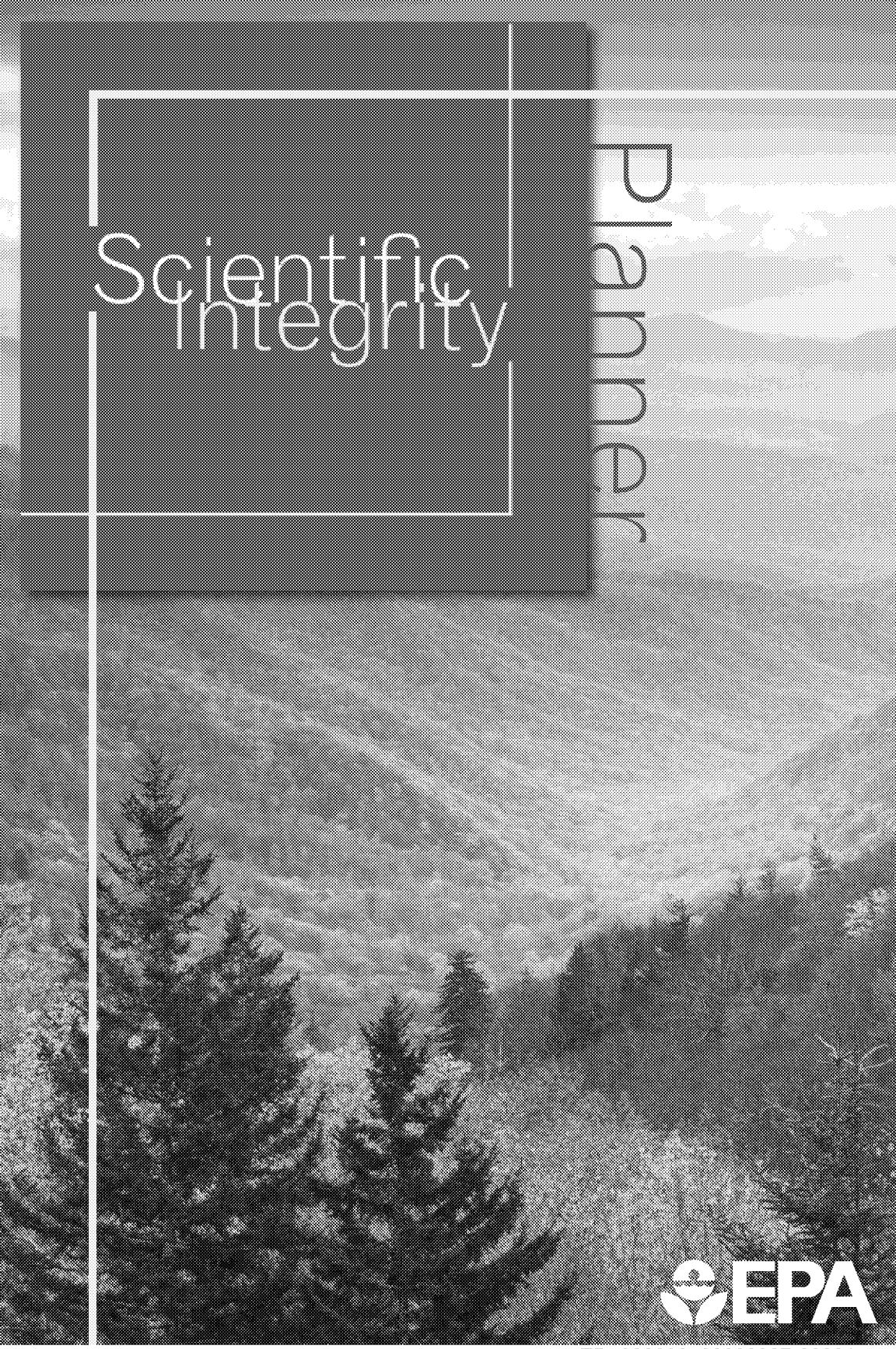
Scientific Integrity

Handbook



EPA

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MONTHLY EXERCISE: *In her January 21, 2016 "elevation" memo, Administrator Gina McCarthy reminded employees "to elevate critical public health and/or environmental issues." How has your office implemented this?*

EPA

January

Monday	Tuesday	Wednesday	Thursday	Friday
Week One				
Week Two				
Week Three				
Week Four				
Week Five				

Scientific integrity is the adherence to professional values and practices, when conducting, supervising, communicating, and applying the results of science. Scientific integrity ensures objectivity, clarity, reproducibility, and utility and provides insulation from bias, fabrication, falsification, plagiarism, outside interference, and censorship.

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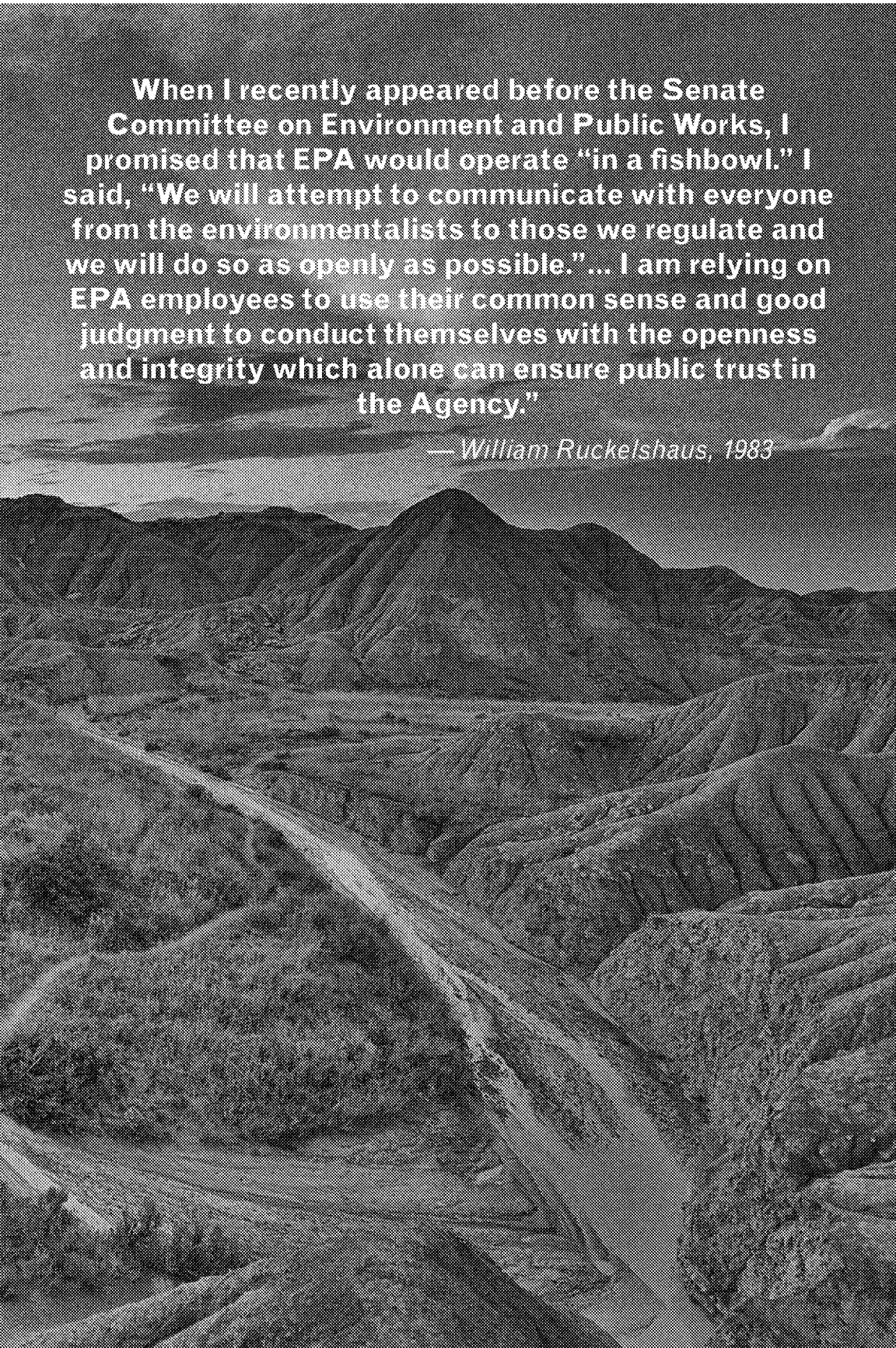

When I recently appeared before the Senate Committee on Environment and Public Works, I promised that EPA would operate "in a fishbowl." I said, "We will attempt to communicate with everyone from the environmentalists to those we regulate and we will do so as openly as possible." ... I am relying on EPA employees to use their common sense and good judgment to conduct themselves with the openness and integrity which alone can ensure public trust in the Agency."

—William Ruckelshaus, 1983

MONTHLY EXERCISE: *How do you and your EPA co-workers demonstrate a commitment to Scientific Integrity? What can you do to enhance Scientific Integrity at EPA?*

EPA

February

Monday	Tuesday	Wednesday	Thursday	Friday
Week One				
Week Two				
Week Three				
Week Four				
Week Five				

The Agency's Scientific Integrity Policy prohibits all EPA employees from suppressing, altering, or otherwise impeding the timely release of scientific findings. It also prohibits Agency leadership from intimidating or coercing scientists to alter scientific data, findings or professional opinions or inappropriately influencing scientific advisory boards.

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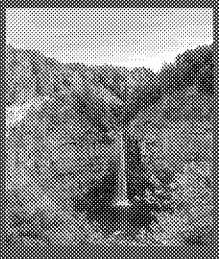
MONTHLY EXERCISE: *What innovations in Scientific Integrity have you and your co-workers accomplished? What innovations can you adopt?*

EPA

March

Monday	Tuesday	Wednesday	Thursday	Friday
Week One				
Week Two				
Week Three				
Week Four				
Week Five				

Consistent with EPA's Principles of Scientific Integrity, the Agency's Scientific Integrity Policy reaffirms the expectation that all Agency employees, including scientists, managers, and political appointees, regardless of grade level, position or duties, will ensure that the Agency's work is of the highest quality, free from political interference or personal motivations.



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"The work we do together to preserve the integrity of our science is as critical as ever...With science as our North Star – EPA has steered America away from health risk and toward a higher quality of life."

— Gina McCarthy, 2014

MONTHLY EXERCISE: *What are the professional values and practices for your discipline? Make a list and find a time to discuss your list with colleagues.*

EPA

April

Monday Tuesday Wednesday Thursday Friday

Week One

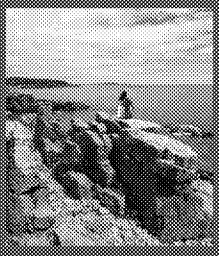
Week Two

Week Three

Week Four

Week Five

The Scientific Integrity Policy requires reviews by Agency managers and other Agency leadership regarding the content of a scientific product to be based only on scientific quality considerations, e.g., the methods used are clear and appropriate, the presentation of results and conclusions is impartial.



Acadia National Park

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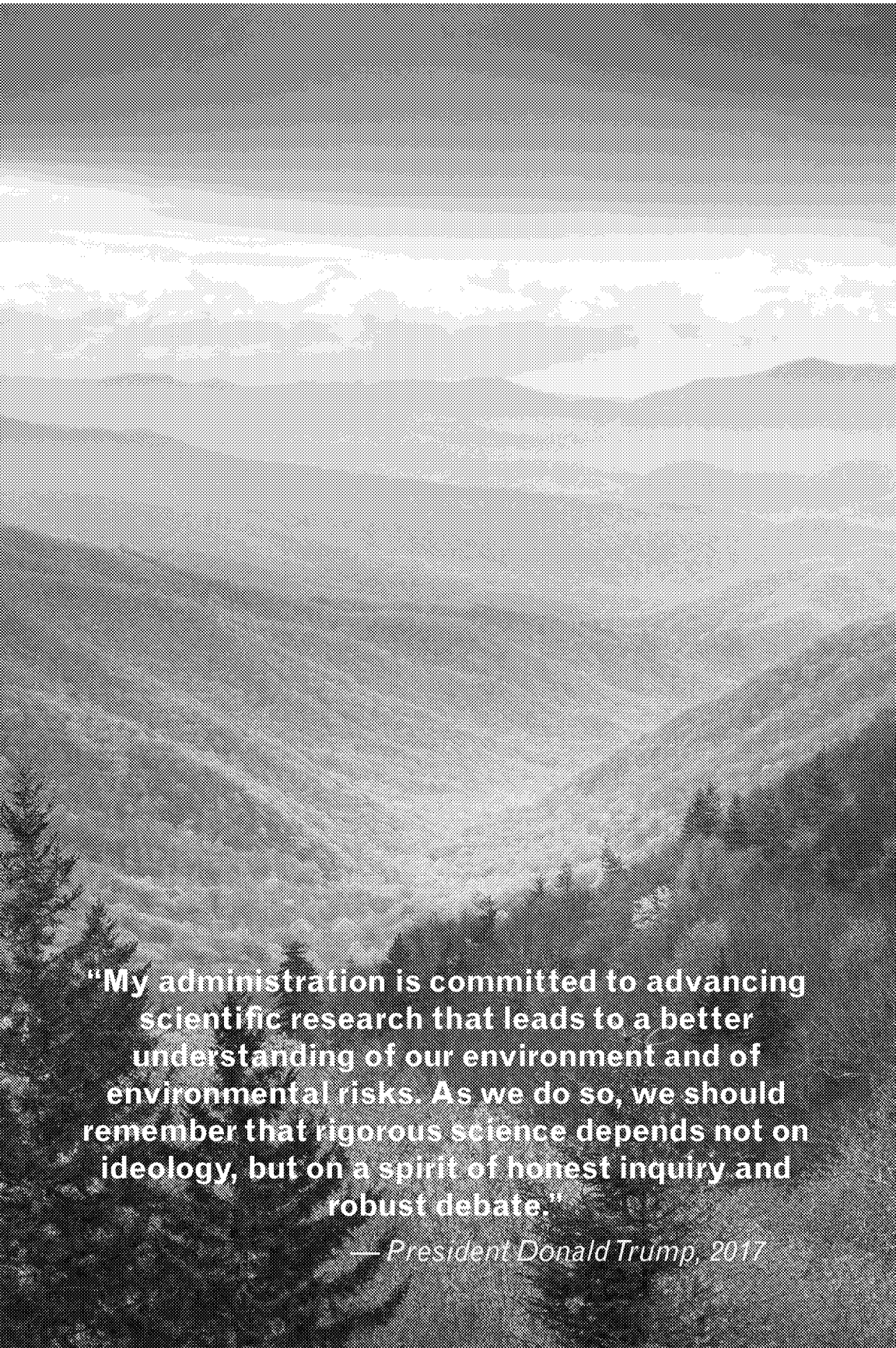

"My administration is committed to advancing scientific research that leads to a better understanding of our environment and of environmental risks. As we do so, we should remember that rigorous science depends not on ideology, but on a spirit of honest inquiry and robust debate."

— President Donald Trump, 2017

MONTHLY EXERCISE: *Think about the scientific findings that are related to your work at EPA. What steps do you take to ensure the scientific integrity of these findings?*

EPA

May

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Week One				
Week Two				
Week Three				
Week Four				
Week Five				

When an Agency employee substantively engaged in the science informing an Agency policy decision disagrees with the scientific data, scientific interpretations, or scientific conclusions that will be relied upon for said Agency decision, the employee is encouraged to express that opinion, complete with rationale, preferably in writing.

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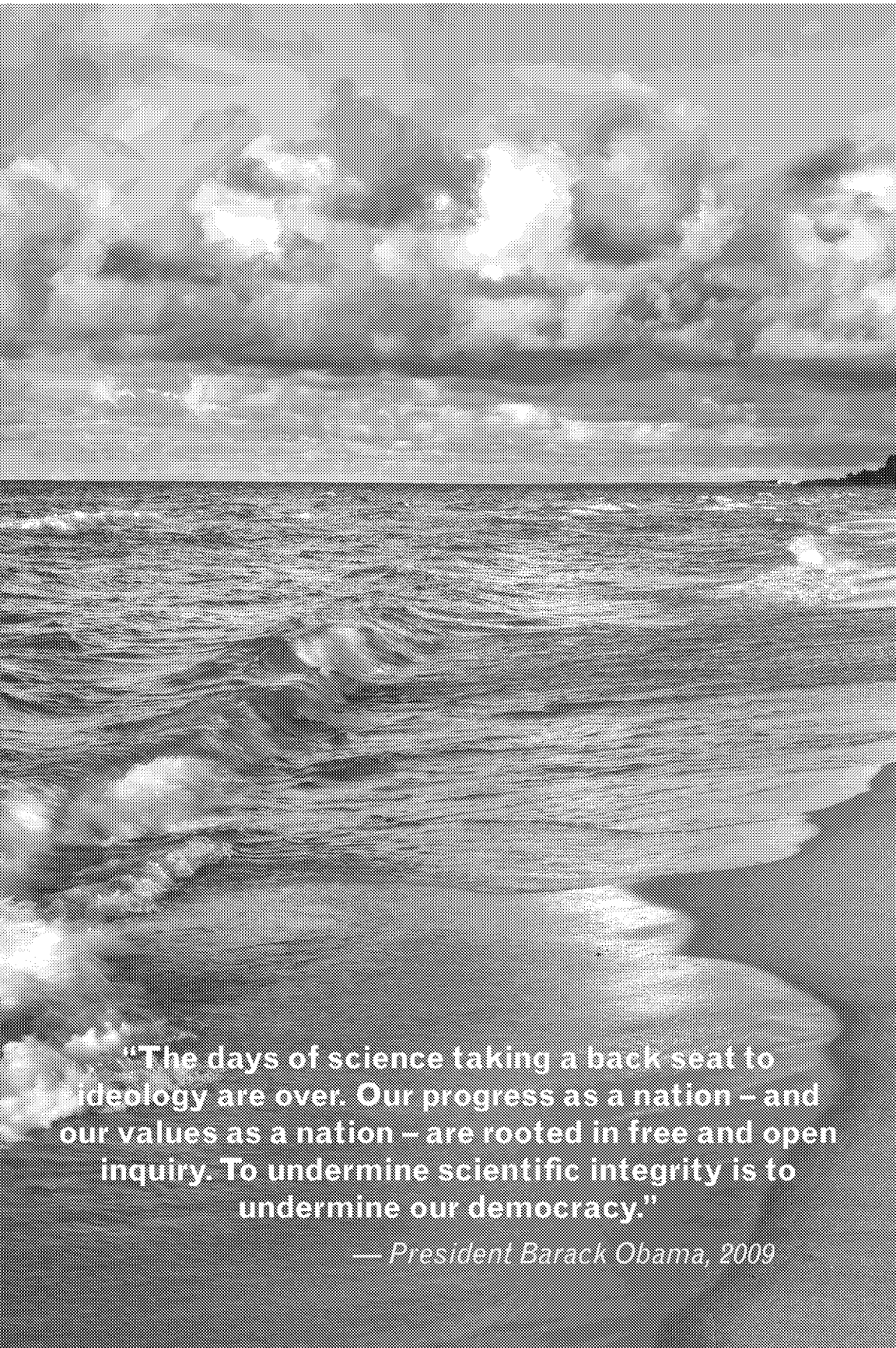

"The days of science taking a back seat to ideology are over. Our progress as a nation – and our values as a nation – are rooted in free and open inquiry. To undermine scientific integrity is to undermine our democracy."

— President Barack Obama, 2009

MONTHLY EXERCISE: *Genuine listening helps build relationships, solve problems, ensure understanding, resolve conflicts, and improve accuracy. Practice being a good listener.*

EPA

June

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Week One				
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Scientists are expected to review, correct, and approve the scientific content of any proposed Agency document intended for public dissemination that significantly relies upon their research, identifies them as an author, or represents their scientific opinion.

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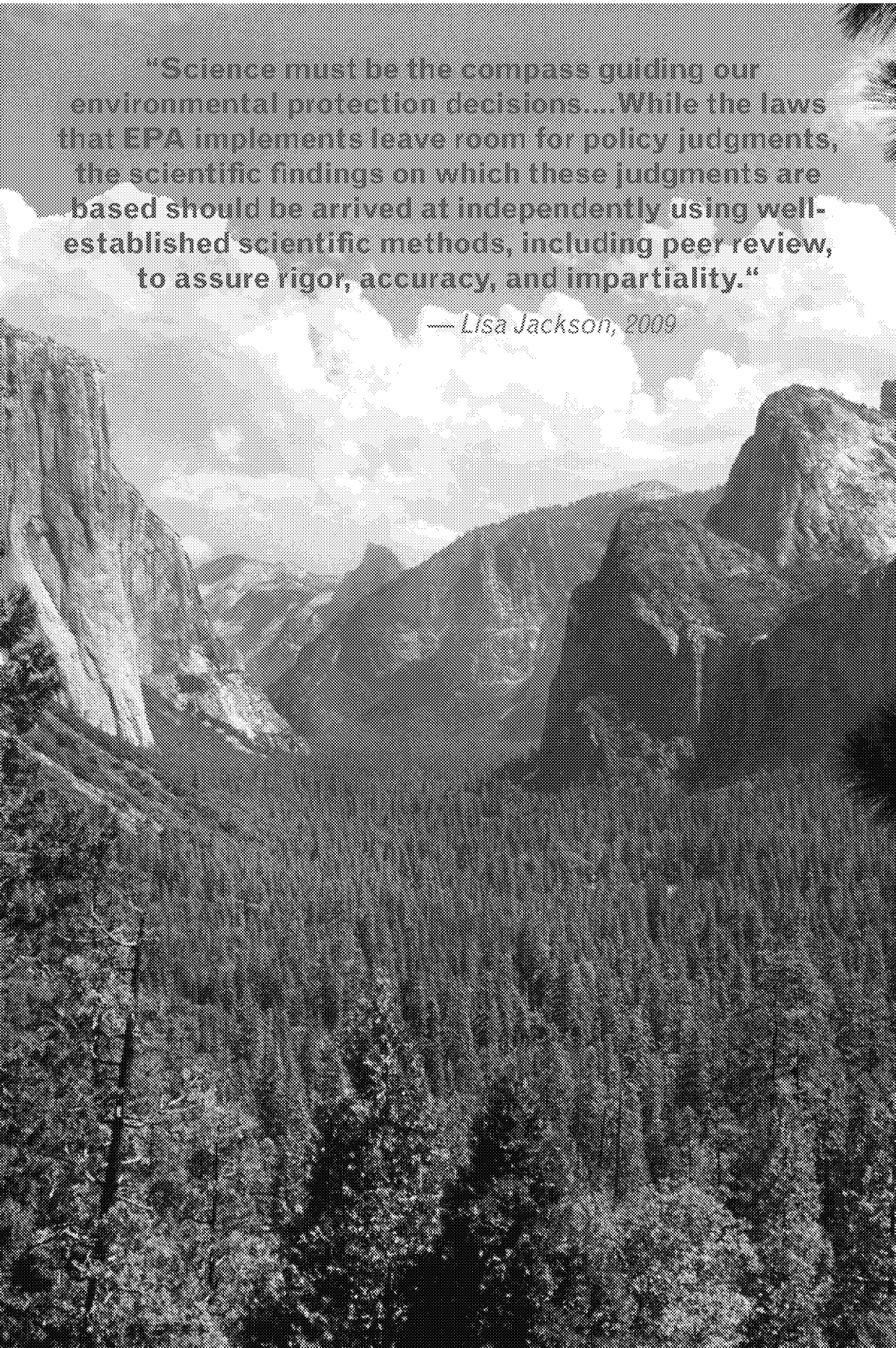

"Science must be the compass guiding our environmental protection decisions.... While the laws that EPA implements leave room for policy judgments, the scientific findings on which these judgments are based should be arrived at independently using well-established scientific methods, including peer review, to assure rigor, accuracy, and impartiality."

— *Lisa Jackson, 2009*

MONTHLY EXERCISE: *Think about an example of a specific situation you have heard about in the media that could serve as an example of a loss of scientific integrity. What were the implications? How could the organization have prevented those actions or behaviors?*

EPA

July

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Week One				
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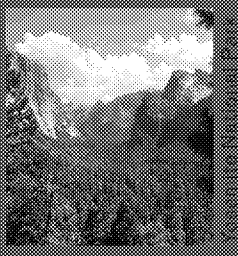
EPA's Scientific Integrity Policy promotes a culture of scientific integrity, fostering honest investigation, open discussion, refined understanding, and a firm commitment to evidence. It requires adherence to applicable Agency information quality, quality assurance, and peer review policies and procedures, ensuring that the Agency produces scientific products of the highest quality, rigor, and objectivity for use in policy decisions.



"Subtlety may deceive you; integrity never will."
— Oliver Cromwell, 1642

MONTHLY EXERCISE: *Thank a colleague for a job well done!*

EPA

August

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Authorship is a reward and a responsibility. It should be talked about early and often, and all members of a team should be offered opportunities to make the intellectual contributions that would earn them authorship.

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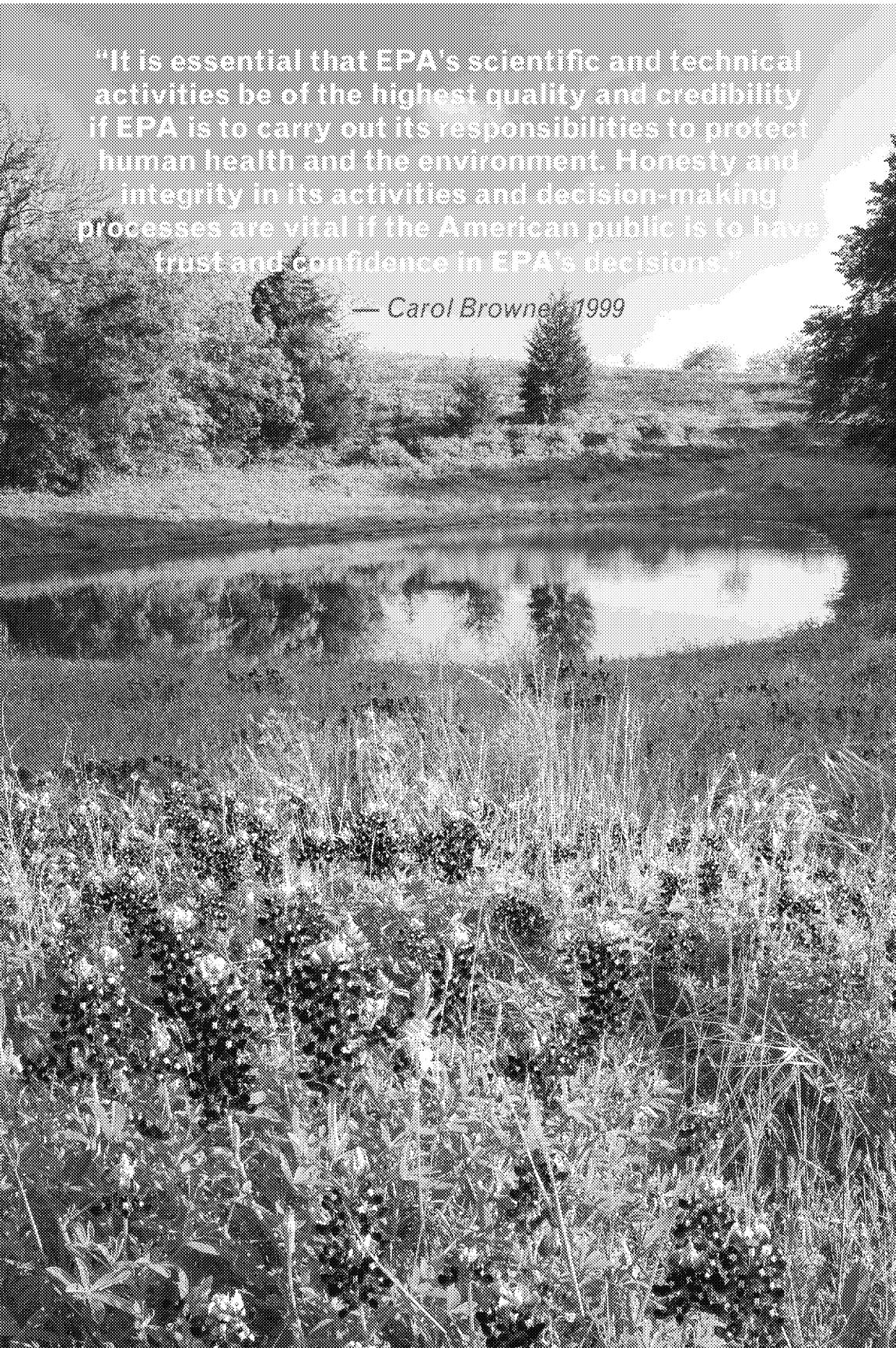

"It is essential that EPA's scientific and technical activities be of the highest quality and credibility if EPA is to carry out its responsibilities to protect human health and the environment. Honesty and integrity in its activities and decision-making processes are vital if the American public is to have trust and confidence in EPA's decisions."

— *Carol Browner, 1999*

MONTHLY EXERCISE: *Was there any instance in the past month when your integrity was tested? Consider the challenge you faced. How can these scenarios be prevented in the future?*

EPA

September

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Week One				
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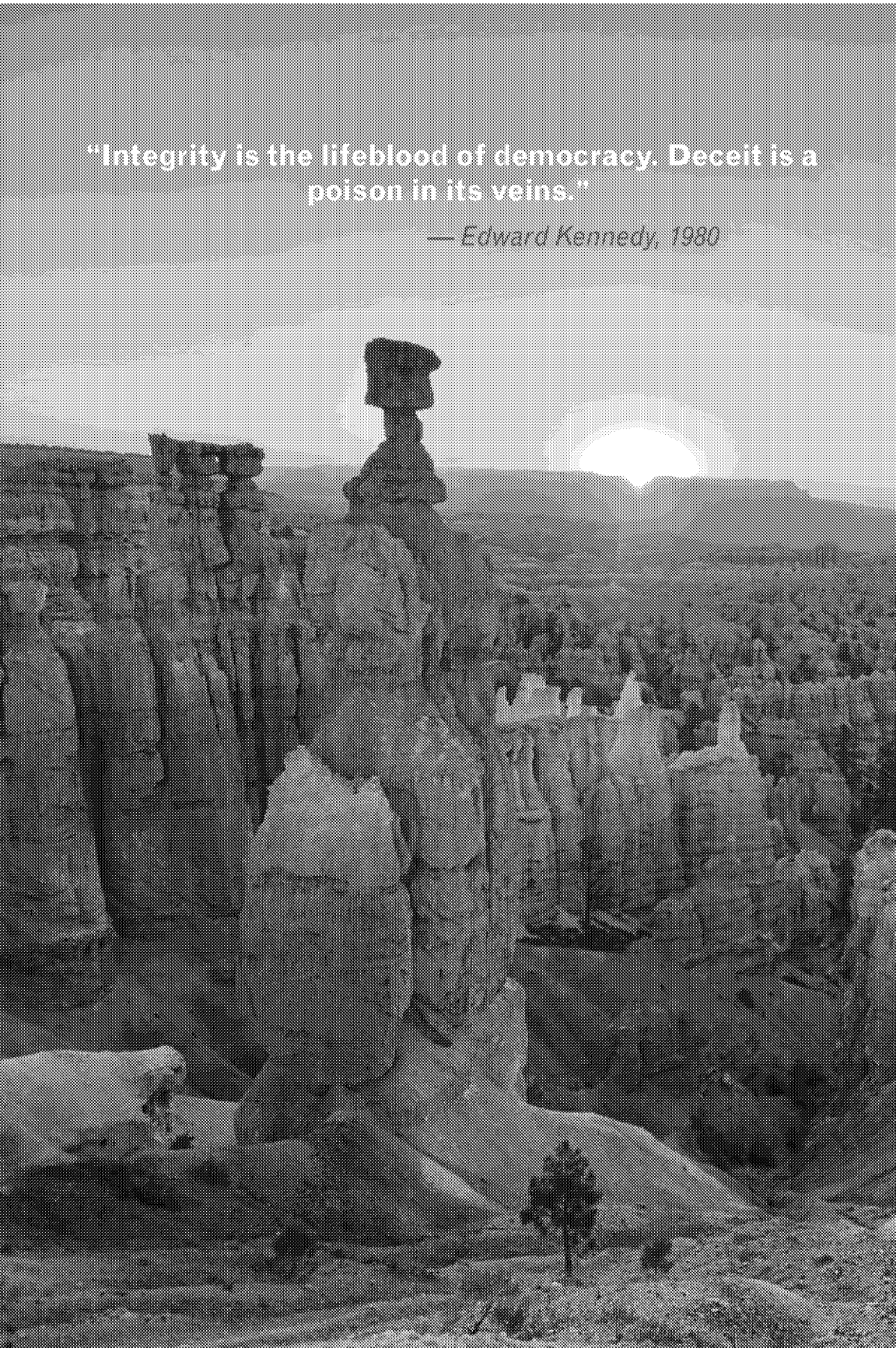
The Scientific Integrity Policy recognizes the value of independent validation of scientific methods. It recognizes the value of independent review of the Agency scientific facilities and testing activities, as occurs with accreditation by a nationally or internationally recognized sanctioning body and as required by Agency policy directives.



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MONTHLY EXERCISE: *Skim EPA's Scientific Integrity Policy. What do you find most valuable? Take a moment to think about why Scientific Integrity is important to you.*

EPA

October

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Week One				
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The Scientific Integrity Policy states that the Agency will continue to expand and promote the free flow of scientific information by making it available online in open formats in a timely manner, including access to data and non-proprietary models underlying Agency policy decisions. Further, the use of non-proprietary data and models are encouraged, when feasible, to increase transparency.

Bryan Cohen

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MONTHLY EXERCISE: *Think of a role model who you think displays integrity in their work. How do they exhibit integrity?*

EPA

November

Monday	Tuesday	Wednesday	Thursday	Friday
Week One				
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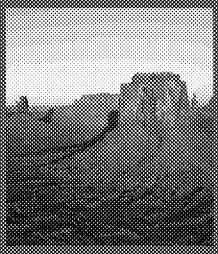
Week Five				

The Scientific Integrity Policy requires all Agency employees to act honestly and refrain from acts of scientific misconduct. Scientific misconduct includes fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, or in the publication or reporting of these activities; scientific misconduct does not include honest error or differences of opinion.



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MONTHLY EXERCISE: *How can EPA ensure a culture of scientific integrity? What practices, actions and behaviors can we demonstrate to reinforce these values in the office?*

EPA

December

Monday	Tuesday	Wednesday	Thursday	Friday

Week One

Week Two

Week Three

Week Four

Week Five

The Scientific Integrity Policy strengthens the actual and perceived credibility of Agency science by, e.g., ensuring that the selection of candidates for scientific positions is based primarily on their scientific and technological knowledge, credentials, experience, and integrity; ensuring that scientific studies used to support regulatory and other policy decisions undergo appropriate levels of independent peer review; setting clear standards governing conflicts of interest; and adopting appropriate whistleblower protections.

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Scientific Integrity at the Environmental Protection Agency

EPA's ability to protect human health and the environment depends upon the integrity of the science on which it relies. The EPA Scientific Integrity Policy provides both a vision and a roadmap for Scientific Integrity at the Agency. The Policy, released in 2012, builds upon EPA's significant earlier scientific integrity efforts and focuses on promoting a culture of scientific integrity at EPA, ensuring the release of scientific information to the public, the consistent use of peer review, and the professional development of its scientists and engineers.

Contact Us

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Scientific Integrity Committee

The Scientific Integrity Committee provides oversight for the implementation of the Scientific Integrity Policy. Led by the Scientific Integrity Official, it is comprised of senior Agency Officials from each Region and Office. A list of committee members and their contact information can be found on our website.

To report fraud, waste or abuse, contact the hotline (Office of Inspector General) through one of the following methods:

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