



# Office of Research and Development Strategic Plan 2018-2022

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## Executive Summary

This strategic plan outlines how EPA’s Office of Research and Development (ORD) will ensure that its science is well formulated, focused on priority issues, conducted in a manner consistent with scientific protocols and guidelines and accessible to the public in a way that is transparent and understandable. The goals and objectives in this strategic plan cascade directly from the goals and objectives in EPA’s 2018-2022 strategic plan. EPA has moved toward concentrating its resources on three central goals: A Cleaner, Healthier Environment, More Effective Partnerships, and Greater Certainty, Compliance, and Effectiveness. ORD’s strategic goals reflect these same three success targets.

<p><b>ORD’S VISION FOR SUCCESS</b></p>	<p>Delivering research products to better protect human health and the environment is ORD’s foremost goal. The science and research results that ORD provides form the foundation for the environmental policies that are a precursor to achieving the best possible public and environmental health outcomes.</p>
<p><i>“We are the world’s leader in environmental science, technology, and research, developing breakthrough solutions that enable EPA, Federal agencies, states, tribes, and communities to protect human health and the environment, now and in the future.”</i></p>	<p>Program, regional, state, Federal and tribal partners are ORD’s primary stakeholders and their needs will be used to identify ORD core priorities. ORD research will provide essential support to the challenges that our partners face and one of ORD’s top priorities will be to develop the tools and products that it’s partners will be able to use to enhance their own environmental programs. ORD’s strategic measure to increase the percentage of research products that meet our partners’ needs will help us gauge our progress in addressing this priority.</p> <p>ORD supports EPA’s regulatory and non- regulatory programs by providing the best possible science, technical support and guidance. ORD will continue to strengthen alignment of its research to support core EPA programs, regions, states, and tribes in accomplishing their top human health and environmental protection priorities. At the same time, ORD will look for the most effective and efficient processes to deliver these results.</p>

ORD’s goals also include a focus on enhancing its workforce. At the core of ORD’s ability to successfully meet its goals and objectives is a talented workforce that is nimble, responsive and trained in the latest science and technology areas. ORD is committed to developing a workforce strategy that sets priorities and provides direction for ORD leaders to optimize the ORD workforce to meet the goals in the ORD and EPA strategic plans. Key elements of the strategy will include attracting and retaining highly skilled staff, developing staff expertise for the future, cultivating a diverse and inclusive workforce, and encouraging and rewarding innovative and outstanding performance.

To support movement towards maximizing the impact of its resources, ORD will implement EPA’s Lean Management System (ELMS) in a number of business and research processes. As efficiencies and resources are saved, these resources will be reinvested in scientific research. In the spirit of the adage “What gets measured gets done,” ORD will track its results, measure its progress, and make mid-course adjustments as necessary to reflect changing conditions and new opportunities.

ORD will report its progress to its partners and stakeholders regularly. In doing so, ORD will hold itself accountable to its partners and stakeholders for achieving ORD's goals and future success.



## Introduction

Since its creation in the 1970's, ORD has been recognized as a world leader in cutting edge research and science. While its mission has evolved over the years to meet changing environmental challenges, the core principles of sound science and transparency have guided its work. ORD has provided the critical science and research that has informed and supported the implementation of EPA's media and cross-cutting laws and regulations. In partnership with our programs, regions, states and tribes, we have worked toward achieving EPA's mission of protecting human health and the environment.

As we approach the next decade, the focus of our work will be driven by new and emerging challenges while the principles that guide our work will remain constant. This strategic plan outlines how ORD will ensure that its science is well formulated, focused on priority issues, conducted consistent with appropriate protocols and quality guidelines, and accessible to the public in a way that is transparent and understandable.

This strategic plan presents ORD's research directions and workplan for the next strategic planning cycle. It begins with EPA's strategic plan, which provides a high-level perspective on EPA's priorities, goals, and objectives. The ORD strategic plan uses the EPA priorities to inform three ORD goals, each of which has a more granular implementation strategy to detail the specific actions and activities that ORD will undertake to achieve its own goals and objectives.

This plan is intended to be used in multiple ways. ORD's senior leadership will use this plan routinely as a management tool to guide ORD's path forward, to track progress and to identify the need for mid-course corrections as necessary. For ORD staff, this plan will serve as a high-level overview of ORD's priorities and will help to ensure that ORD, as a coordinated team, is moving forward in the same direction with the same set of goals in mind. The plan will allow ORD's partners to see how we have included them in our priority setting and how their priorities are reflected in our work. For other external groups, this plan will provide insight into our planned activities.

We are proud to share this forward-looking strategic plan. It is ORD's staff that will fulfill the commitments made in this plan. We are exceptionally proud of our team and we will provide the leadership and support necessary to enable them to do what they do best, namely, "to provide the best available environmental science and technology to inform and support human health and environmental decision-making".<sup>1</sup>

ORD's Executive Council Members

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<sup>1</sup> ORD Mission Statement

## ORD Strategic Framework

This plan is one component of a comprehensive framework that presents ORD’s research directions and workplan for the next strategic planning cycle. The framework is based on EPA’s strategic plan, which provides a high-level perspective on EPA’s priorities, goals, and objectives. From that plan, ORD has developed this plan, which uses the EPA priorities to inform ORD’s goals and objectives. For each of ORD’s three goals, there is a more granular implementation strategy that details the specific actions and activities that will allow ORD to meet its goals and objectives. For ORD Goal 1: “Enhancing Environmental Science and Technology,” ORD will work with its partners to identify high priority research needs and develop the research tools necessary to inform environmental decision-making at the local, state, regional, national and international level. ORD will continue to refine its research efforts and update the next iteration of StRAPs based on feedback from decision-makers. For Goal 2: “More Effective Partnerships - Informing Federal, State, Tribal and Local Environmental Decision-Making,” an overarching approach to strengthen relationships with states has been adopted, outlining engagement activities and opportunities to inform decision-making. For Goal 3: “Enhancing and Sustaining a Strong ORD Workforce and Workplace,” an ORD Workforce Strategy has been developed. It sets priorities and provides direction for ORD leaders to optimize the workforce to meet the goals in this ORD strategic plan. Performance metrics will measure progress and success in meeting ORD’s goals and objectives. These performance metrics will be used to assess ORD’s progress toward achieving its overarching strategic metric: “By September 30, 2022, ORD will increase the percentage of research products meeting customer needs.”

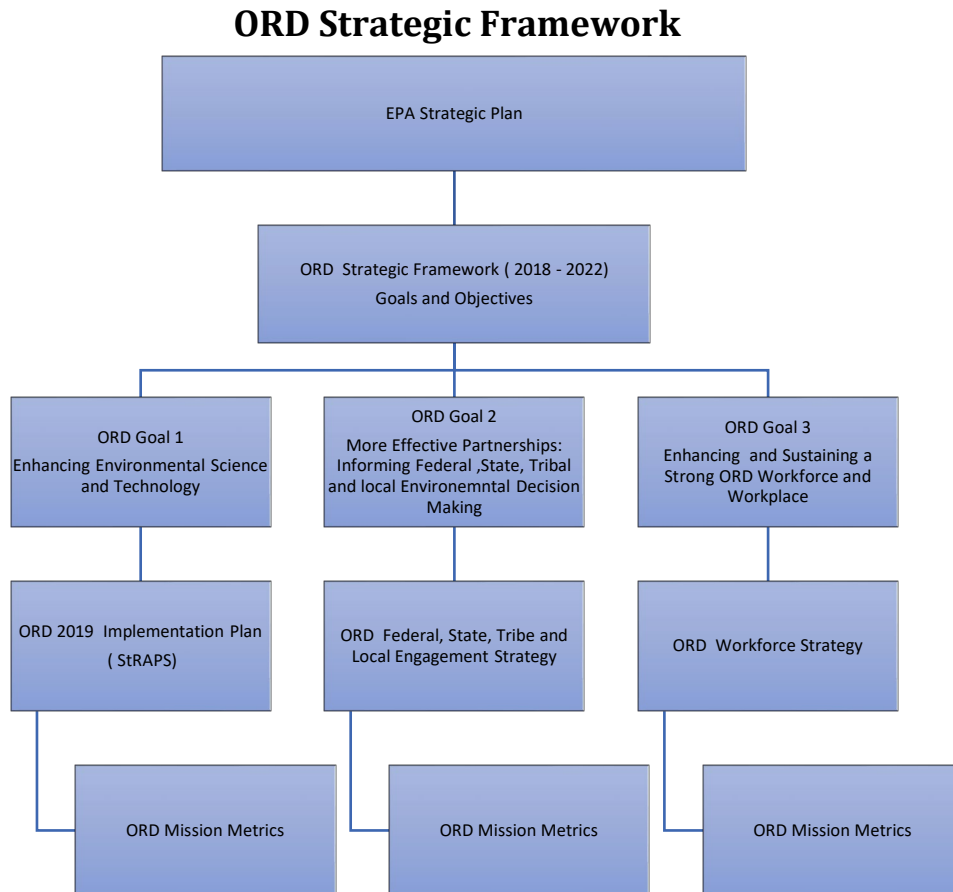


Figure 1 ORD Strategic Framework

## Organizational Overview

ORD is the scientific research arm of EPA that conducts research essential to informing and implementing our nation’s environmental laws. ORD’s leading-edge research and expert scientific advice help provide the solid underpinning of science and technology for EPA’s program offices and regions as they implement both media-specific and multi-media environmental policies. ORD also provides leadership in cross-Agency science and science-policy to ensure the best application of science at EPA. In addition, ORD’s research supports the emerging needs of EPA stakeholders, including the Agency’s state, tribal, and community partners.<sup>2</sup>

ORD has six research programs that focus on the most pressing environmental and health research needs that have been identified by EPA’s program and regional offices and other partners. The six research programs are:

- Air and Energy (A-E)
- Chemical Safety for Sustainability (CSS)
- Homeland Security Research Program (HSRP)
- Health and Environmental Risk Assessment (HERA)
- Safe and Sustainable Water Resources (SSWR)
- Sustainable and Healthy Communities (SHC)

ORD conducts research at its national headquarters office in Washington D.C. and in research centers across the country. Working within a structure that is intended to maximize collaboration, ORD leverages the skills and expertise of its diverse workforce to address our nation’s most pressing environmental science and research needs. ORD has also been a critical resource when our nation has been faced with natural or man-made emergency situations, demonstrating the capability and the capacity to respond rapidly with technical assistance, laboratory research, and in-the-field science and research support.

### ORD Research Continuum

ORD conducts research that spans a continuum of time frames from longer- term anticipatory research to nearer- term research that both informs current Agency programs and responds to emergency situations. This continuum enables ORD to prepare for emerging environmental issues while also providing near-term research support and technical assistance.



Figure 2 ORD's Research Continuum

<sup>2</sup> The term “partners” in this plan is used in the broadest sense, including but not limited to EPA Program and Regional Offices, States, Tribes, communities, the public, industry, international organizations and all other interested parties.

## The Principles that Guide ORD's Work

In conducting the critical research that informs and enables the safeguarding of our nation's health and environment, ORD staff are guided by the following principles:

1. **We are environmental stewards.** *I take action to care for and ensure a healthy and thriving environment now and in the future.*
2. **We are an organization of scientific excellence that informs environmental decisions.** *I diligently use all my talents to contribute significantly to our goals and to fulfilling our mission.*
3. **We actively seek out partnerships that advance the quality, relevance, and impact of ORD's solutions driven research.** *I actively look beyond my own areas of expertise to see how my contributions combine with those of others to fulfill ORD's mission.*
4. **We exhibit leadership and ownership.** *I am responsible for developing and exhibiting my leadership.*
5. **We trust each other and are worthy of each other's trust.** *I am mindful of others' trust in me and I always behave with integrity.*
6. **We communicate honestly, openly, and clearly.** *I seek the information I need and provide the information that others need in support of a culture of open communication.*
7. **We enable decisions at the most local level possible.** *I am responsible for actively seeking opportunities to engage others in decision making.*
8. **We value the talents, skills, and experiences of our diverse workforce.** *I seek to understand, appreciate, and engage others' unique talents, perspectives, and contributions.*
9. **We are accountable to others for our actions.** *Forever mindful that our work serves a public trust, I am dedicated to fulfilling our commitments and making the most of our resources.*
10. **We recognize and celebrate our accomplishments.** *I always recognize and celebrate others for a job well done.*

## EPA Goals and Objectives

EPA's FY 2018-2022 Strategic Plan is based on three overarching goals:

**Goal 1 – A Cleaner, Healthier Environment:** Deliver a cleaner, safer and healthier environment for all Americans and future generations by carrying out the Agency's core mission.

**Goal 2 – More Effective Partnerships:** Provide certainty to states, localities, tribal nations and the regulated community in carrying out shared responsibilities and communicating results to all Americans.



**Goal 3 – Greater Certainty, Compliance and Effectiveness:** Increase certainty, compliance and effectiveness by applying the rule of law to achieve more efficient and effective Agency operations, service delivery and regulatory relief.

Taken together, these goals are designed to transform the way that EPA addresses environmental challenges and to more efficiently and effectively deliver human health and environmental results. The three strategic goals established in the EPA strategic plan are supported by strategic objectives and strategic measures focused on advancing human health and environmental results over the next four years. (A complete listing of EPA Goals and Objectives can be found in the Appendix A)

ORD’s FY’18-22 strategic plan has used the three EPA goals to frame the priorities that will guide its work in the future. ORD’s goals and objectives cascade directly from the EPA strategic plan goals and will provide direct support to accomplishing EPA’s mission.

### Cascading Process for EPA and ORD Goals and Objectives

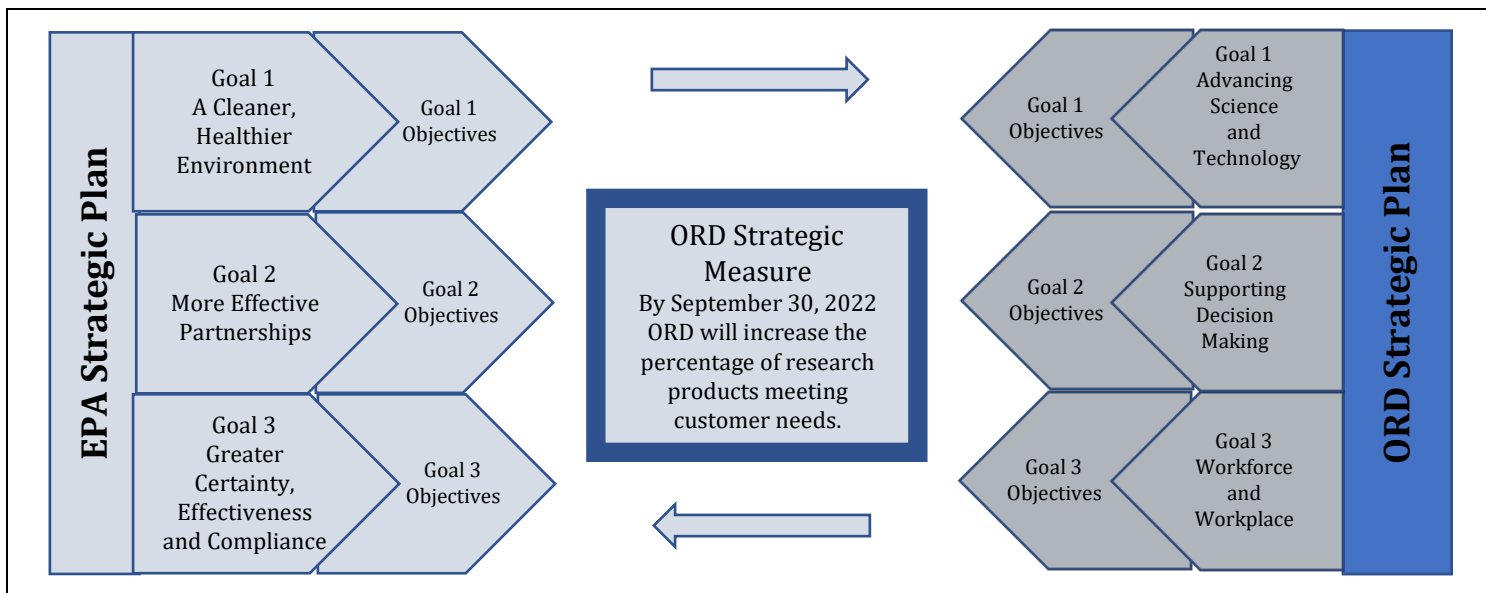


Figure 3: ORD Cascading Process

## ORD FY'18-22 Goals and Objectives

### ORD'S MISSION

*“ORD’s mission is to provide the best available environmental science and technology to inform and support human health and environmental decision making at the Federal, state, tribal and local levels, addressing critical environmental challenges and anticipating future needs through leading edge research.”*

ORD’s mission is to provide the best available environmental science and technology to inform and support human health and environmental decision-making at the Federal, state, tribal and local levels, addressing critical environmental challenges and anticipating future needs through leading-edge research.

ORD has established three strategic goals to meet future environmental challenges. The goals in ORD’s strategic plan flow from the goals in EPA’s plan (see Figure 3). ORD’s goals and objectives link directly to each of EPA’s core goals and strategic objectives. In achieving these goals, ORD will ensure that its science continues to be of the highest quality, timely, relevant, responsive and accessible.

As EPA has moved toward concentrating its resources on three central goals: A Cleaner, Healthier Environment; More Effective Partnerships and Greater Certainty; Compliance and Effectiveness, ORD ‘s strategic goals reflect these same three objectives. ORD will align its research efforts to provide the research results needed to accomplish these Agency goals, by informing the decision-making of EPA’s program offices and regions, states and tribes, and other partners in accomplishing their top human health and environmental protection priorities.

### ORD’s FY’18-22 Strategic Goals

**ORD Goal 1: Advancing Environmental Science and Technology** – Design and conduct high priority science and technology research to: improve environmental decision making; develop tools and technologies that support current and future state and tribal partner needs; and accelerate the development of cost-effective approaches to the most significant environmental challenges.

**ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision making** – Support the development and evaluation of cost-effective risk assessment and risk management approaches that support Federal, state and local environmental decision-making by making ORD’s research results, tools and technical expertise more widely known and available to Federal, state, tribal and local partners.

**ORD Goal 3: Enhancing the ORD Workforce and Workplace** – Continue to strive to be a High Performing Organization. ORD will continue to invest in a both a diverse and outstanding workforce that supports the Office’s mission and a work environment that supports the career development and impactful contributions of all ORD staff.

## Alignment of ORD Goals with EPA Goals and Objectives

EPA Goals	EPA Objectives	Cascading ORD Goals: Alignment of ORD Research Programs <sup>3</sup> and ORD goals with EPA Goals and Objectives
<p><b>Goal 1: A Cleaner, Healthier Environment:</b> Deliver a cleaner, safer and healthier environment for all Americans and future generations by carrying out the Agency’s core mission.</p>	<p><b>Objective 1.1 – Improve Air Quality:</b> <i>Work with states and tribes to accurately measure air quality and ensure that more Americans are living and working in areas that meet high air quality standards.</i></p>	<p><i>ORD Research Program: Air and Energy</i> <i>ORD Research Program: Human Health Risk Assessment</i></p> <p><b>ORD Goal 1: Advancing Environmental Science and Technology</b> <b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b></p>
<p><b>Goal 1</b></p>	<p><b>Objective 1.2 – Provide for Clean and Safe Water:</b> <i>Ensure waters are clean through improved water infrastructure and, in partnership with states and tribes, sustainably manage programs to support drinking water, aquatic ecosystems, and recreational, economic, and subsistence activities.</i></p>	<p><i>ORD Research Program: Safe and Sustainable Water Resources</i> <i>ORD Research Program: Human Health Risk Assessment</i></p> <p><b>ORD Goal 1: Advancing Environmental Science and Technology</b> <b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b></p>
<p><b>Goal 1</b></p>	<p><b>Objective 1.3 – Revitalize Land and Prevent Contamination:</b> <i>Provide better leadership and management to properly clean up contaminated sites to revitalize and return the land back to communities.</i></p>	<p><i>ORD Research Program: Sustainable Communities</i> <i>ORD Research Program: Homeland Security</i> <i>ORD Research Program: Human Health Risk Assessment</i></p> <p><b>ORD Goal 1: Advancing Environmental Science and Technology</b> <b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b></p>
<p><b>Goal 1</b></p>	<p><b>Objective 1.4 – Ensure Safety of Chemicals in the Marketplace:</b> <i>Effectively implement the Toxic Substances Control Act, and the Federal Insecticide, Fungicide, and Rodenticide Act, to ensure new and existing chemicals and pesticides are reviewed for their potential risks to human health and the environment and actions are taken when necessary.</i></p>	<p><i>ORD Research Program: Chemical Safety for Sustainability</i> <i>ORD Research Program: Human Health Risk Assessment</i></p> <p><b>ORD Goal 1: Advancing Environmental Science and Technology</b> <b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b></p>

<sup>3</sup> ORD’s research programs are often cross cutting and while they are “aligned” with specific EPA goals and objectives in this chart, much of ORD’s research supports multiples goals.

EPA Goals	EPA Objectives	Cascading ORD Goals: Alignment of ORD Research Programs <sup>3</sup> and ORD goals with EPA Goals and Objectives
<p><b>Goal 2: More Effective Partnerships:</b> Provide certainty to states, localities, tribal nations and the regulated community in carrying out shared responsibilities and communicating results to all Americans.</p>	<p><b>Objective 2.1 – Enhance Shared Accountability:</b> <i>Improve environmental protection through shared governance and enhanced collaboration with state, tribal, local, and Federal partners using the full range of compliance assurance tools.</i></p>	<p><b>ORD Goal 1: Advancing Environmental Science and Technology</b></p> <p><b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b></p>
<p><b>Goal 2</b></p>	<p><b>Objective 2.2 – Increase Transparency and Public Participation:</b> <i>Listen to and collaborate with impacted stakeholders and provide effective platforms for public participation and meaningful engagement</i></p>	<p><b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b></p>
<p><b>Goal 3: Greater Certainty, Compliance and Effectiveness:</b> Increase certainty, compliance and effectiveness by applying the rule of law to achieve more efficient and effective Agency operations, service delivery and regulatory relief.</p>	<p><b>Objective 3.1 – Compliance with the Law:</b> <i>Timely enforce environmental laws to increase compliance rates and promote cleanup of contaminated sites through the use of all of EPA’s compliance assurance tools, especially enforcement actions to address environmental violations.</i></p>	<p>NA</p>
<p><b>Goal 3</b></p>	<p><b>Objective 3.2 – Create Consistency and Certainty:</b> <i>Outline exactly what is expected of the regulated community to ensure good stewardship and positive environmental outcomes.</i></p>	<p><b>ORD Goal 1: Advancing Environmental Science and Technology</b></p> <p><b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b></p>

EPA Goals	EPA Objectives	Cascading ORD Goals: Alignment of ORD Research Programs <sup>3</sup> and ORD goals with EPA Goals and Objectives
<p><b>Goal 3</b></p>	<p><b>Objective 3.3 – Prioritize Robust Science:</b> <i>Refocus the EPA’s robust research and scientific analysis to inform policy making.</i></p>	<p><b>ORD Research Programs: Human Health Risk Assessment</b>  <b>ORD Research Program: Air and Energy</b>  <b>ORD Research Program: Homeland Security</b>  <b>ORD Research Program: Chemical Safety for Sustainability</b>  <b>ORD Research Program: Safe and Sustainable Water Resources</b>  <b>ORD Research Program: Sustainable and Healthy Communities</b></p> <p><b>ORD Goal 1: Advancing Environmental Science and Technology</b>  <b>ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making</b>  <b>ORD Goal 3: Enhancing the ORD Workforce and Workplace</b></p>
<p><b>Goal 3</b></p>	<p><b>Objective 3.4 – Streamline and Modernize:</b> <i>Issue permits more quickly and modernize our permitting and reporting systems.</i></p>	<p>NA</p>
<p><b>Goal 3</b></p>	<p><b>Objective 3.5 – Improve Efficiency and Effectiveness:</b> <i>Provide proper leadership and internal operations management to ensure that the Agency is fulfilling its mission.</i></p>	<p><b>ORD Goal 3: Enhancing the ORD Workforce and Workplace</b></p>

## ORD’s Strategic Measure of Progress<sup>4</sup>

ORD’s senior leadership will use this strategic plan routinely as a management tool to guide the Office’s path forward, track progress and identify and address any challenges that could potentially interfere with ORD’s ability to accomplish its goals. Consistent with EPA’s mission, protecting human health and safeguarding the environment are the ultimate measures of our success. We will gauge our progress in achieving this success by assessing the contributions and impacts of ORD’s integrated science and engineering products on decision-making by our program, regional, state and tribal partners, industry and the public. ORD will measure its progress in meeting its goals and objectives with our strategic measure.

**ORD Strategic Measure: By September 30, 2022 ORD will Increase the percentage of research products meeting customer needs.**

ORD has developed a performance and evaluation framework that supports its Strategic Measure:

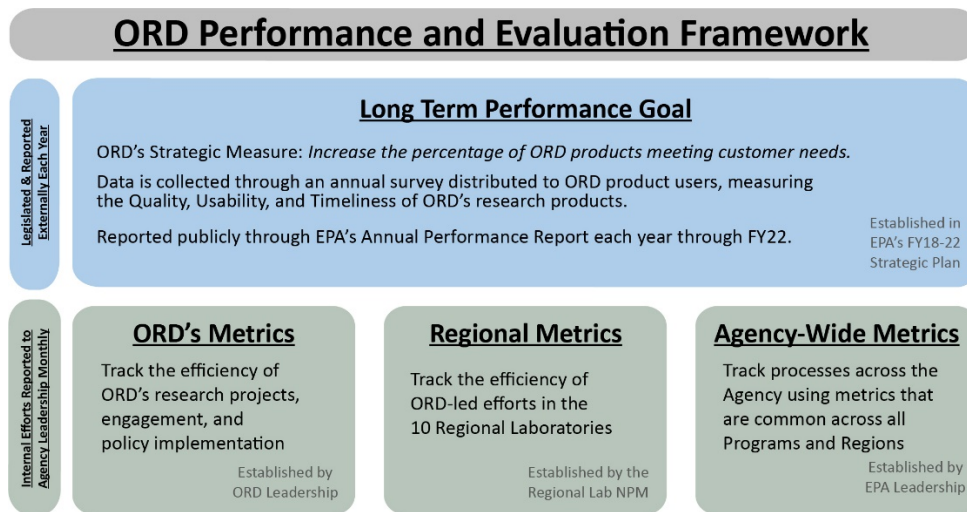


Figure 4: ORD Metrics

These supporting metrics have been designed to:

- Build a measures portfolio that incentivizes good research management
- Provide data to managers and senior leaders that aid in decision-making
- Plan strategically in anticipation of future reporting needs
- Build a culture of evidence-based research evaluation

<sup>4</sup> This strategic measure may evolve over time as ORD gains experience in measuring this type of progress

## ORD Goal 1: Advancing Environmental Science and Technology<sup>5</sup>

**Strategic Measure:** By September 30, 2022 ORD will increase the percentage of research products meeting customer needs.<sup>6</sup>

As the nation’s premier environmental and human health research organization, ORD’s first strategic goal is to design and conduct high priority science and technology research to improve environmental decision-making; develop tools and technologies that support current and future state and tribal partner needs and accelerate the development of cost effective approaches to the most significant environmental challenges. EPA’s program, regional, state and tribal partners will be engaged with ORD in identifying the short-, medium-, and long-term needs that will set the foundation for ORD’s research agenda. Through shared governance and enhanced collaboration, achieving this goal will ensure that all partners are focusing on high priority environmental challenges. A shared research agenda will assess the most challenging problems that threaten the quality of our nation’s air, land, and water, and will focus on the research needed to support EPA’s decision-making agenda, as well as regional needs and state and tribal priorities.

### ORD Objective 1.1

#### **Develop and deliver state-of-the-art science and technology research results that inform decision-making to protect human health and environment.**

*ORD will work with its program, regional, state, and tribal partners to identify high priority research needs and develop the research tools necessary to inform environmental decision-making at the local, state, regional, national and international level. ORD will refine its research efforts, including this ORD Strategic Plan, the Strategic Research Action Plans for the Research Programs and the Engagement Strategy, based on feedback from decision-makers.*

**Description of Objective:** ORD will work with its program, and regional partners, states, and tribes to collaborate on the identification of environmental research needs and the development of state-of-the-art research tools that will allow informed environmental decision-making at the local, state, regional and Federal level. This includes providing “real time” technical assistance and training where appropriate. To pursue sustainable policies and practices, EPA, states, tribes and local communities need impactful research results and effective scientific tools to inform their environmental decisions, including the rigorous evaluation of cross-media impacts and consequences.

### ORD Objective 1.2

#### **Conduct high priority risk assessments.**

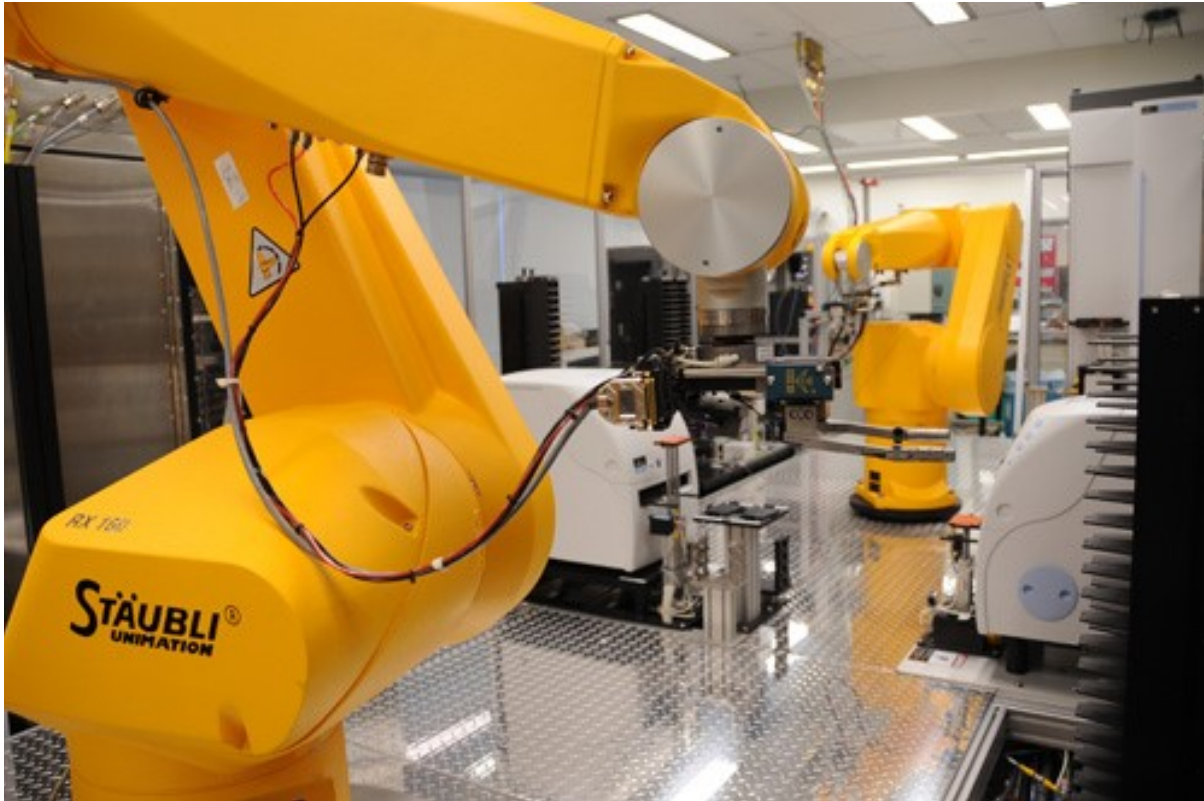
*ORD will work with its partners to assess human and ecosystem risks associated with air, water, and land pollutants on individual, community, regional, national, and global scales.*

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<sup>5</sup> (Aligns with EPA Plan Goal 1, Objectives 1.1; 1.2; 1.3; 1.4; Goal 2, Objectives 2.1; and Goal 3, Objectives 3.2, 3.3)

<sup>6</sup> “Meeting the needs of partners will be defined according to multiple criteria: Usability, Product Quality, Timeliness, etc.

**Description of Objective:** EPA will use risk assessments to characterize the nature and magnitude of health risks to humans (e.g., residents, workers, vulnerable populations) and ecological receptors (e.g., birds, fish, wildlife) from chemical contaminants and other stressors that may be present in the environment. The scope of these assessments will be tailored broadly or narrowly to focus on environmental challenges of national scope (e.g., Per- and Polyfluoroalkyl Substances, lead) or of more local concerns (e.g., Superfund sites, drinking water systems). Over the next four years, ORD will assess issues of national and global significance and work with its partners to collaborate on assessments of more local concern.



*Advancing environmental science and technology*



## ORD Goal 2: More Effective Partnerships: Informing and Supporting Federal, State, Tribal and Local Decision-making<sup>7</sup>

Strategic Measure: By September 30, 2022 ORD will increase the percentage of research products meeting customer needs.<sup>8</sup>

ORD will align its resources to fund research that supports decisions made under Federal, state, tribal and local statutes, laws and regulations. ORD will work with its partners to explore the most cost-effective risk mitigation approaches that reduce risk in keeping with statute-specific criteria. When combined with the objectives of Goal 1, ORD will be focused on providing a full spectrum of research and support to EPA's program offices, regions, and other partners. This goal will be further supported by the development of a in depth Federal, State, Tribe and Local Engagement Strategy.

### ORD Objective 2.1

#### **Develop and evaluate innovative and cost-effective solutions to existing and emerging environmental challenges.**

*ORD will deploy its extensive, interdisciplinary set of skills to develop sustainable, cost-effective, and innovative multi-pollutant and sector-based approaches to prevent and reduce pollution. ORD will also work to raise awareness of our research products to states and tribes to assist them in the development of their environmental programs.*

**Description of Objective:** To pursue sustainable policies and practices, EPA, states, tribes and local communities need impactful research results and effective scientific tools that reflect a rigorous evaluation of cross-media impacts and consequences. ORD's Centers house the nation's premiere expertise in designing efficient and effective approaches to preventing pollution at its source and managing or reducing pollution that may be already present in the environment. ORD, working with EPA's program and regional offices, states, tribes, and across the Federal government, will use its expertise to develop cost-effective solutions that result not only in a healthier environment but also can enhance competitiveness. Comprehensive pollution prevention approaches can result in increased energy efficiency, local and national job creation, and stronger industrial competitiveness.

### ORD Objective 2.2

#### **Leverage ORD's technical support capability to maximize investment in solutions to today's environmental challenges.**

*ORD will align the criteria and timeframe for its technical assistance support to focus on the needs of its partners and to respond in a timely way to effectively address current and emerging environmental concerns.*

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<sup>7</sup> (Aligns with EPA Plan Goal 1, Objectives 1.1; 1.2; 1.3, 1.4; Goal 2 Objectives 2.1; 2.2; and Goal 3, Objectives 3.2; 3.3)

<sup>8</sup> "Meeting the needs of partners will be defined according to multiple criteria: Usability, Product quality, Timeliness

**Description of Objective:** ORD will provide technical assistance to its EPA program and regional office partners, states and tribes to help them assess and address existing environmental challenges. ORD will work to ensure that the assistance it provides delivers impactful and timely solutions.

### **ORD Objective 2.3**

#### **Proactively engage EPA’s program and regional offices, states, tribes, local and other partners**

**Description of Objective:** Aligning with ORD Goal 1, Objective 1.1, ORD will proactively engage its regional partners, states, tribes, local and other partners to identify research needs and provide the expertise to translate research findings and data so that it can be used to make impactful decisions that protect human health and the environment.



*Informing and Supporting Federal, State, Tribal and Local Decision-making*

## ORD Goal 3: Enhancing the ORD Workforce and Workplace<sup>9</sup>

Strategic Measure: By September 30, 2022 ORD will increase the of research products meeting customer needs.

To be successful in meeting its science and research goals, ORD must invest in its workforce. We must find ways to continue to attract the outstanding research community that makes up our workforce today and we must create a work environment that supports the career development of not only our researchers but all ORD staff that support the office in its mission. We must develop the strategies and implementation plans that allow ORD to continue to be an organization of excellence, capable of meeting its commitments to EPA, states, and tribes, and the nation.

### **ORD Objective 3.1**

#### ***Continue to develop into an organization of excellence***

**Description of Objective:** ORD recognizes that its science and research are enhanced when it brings together the diversity of backgrounds, skills, and talents that characterize its workforce. ORD is committed to attracting and maintaining a diverse and engaged workforce and an organizational structure that is focused on continuous learning and continuous improvement. ORD leadership will support a collaborative and transparent work environment, invest in modernizing business practices through Lean approaches, support the development and use of new tools and technologies, and strive to ensure that ORD adds value in every interaction of our staff with our partners and external collaborators.

### **ORD Objective 3.2**

#### ***Integrate EPA's Lean management system (ELMS) across ORD's business and research processes where appropriate and practical***

*Operating in the most efficient manner possible will allow ORD to maximize the resources that it can deploy to critical research and technical assistance efforts.*

**Description of Objective:** ORD will deploy Lean management principles and tools to eliminate waste and become more nimble and more cost effective in accomplishing its mission. Many of ORD's processes, especially longstanding ones, will benefit from a Lean management process. The resources saved as a result of Leaned processes will be reinvested into ORD's research efforts.

### **ORD Objective 3.3**

#### ***Develop a Workforce Strategy and Companion Workforce Plan***

*ORD is committed to developing and implementing a workforce strategy to set priorities and provide direction for ORD leaders to optimize the workforce to meet the goals in the ORD and EPA strategic plan.*

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<sup>9</sup> (Aligns with EPA Plan Goal 3 Objective 3.3; 3.5)

**Description of Objective:** The Workforce Strategy will identify and address ORD's workforce needs. It will help ORD leadership to align staff with research priorities in planning; build and invest in an adaptable workforce; cultivate a diverse and inclusive workforce; improve performance management; and value collaboration. A companion workforce implementation plan will provide the mechanisms and tools for ORD managers to implement the ORD workforce strategy and to identify measures of success.



*Enhancing the ORD workforce and workplace*

## APPENDIX A

### EPA Goals and Objectives

**Goal 1 – A Cleaner, Healthier Environment: Deliver a cleaner, safer and healthier environment for all Americans and future generations by carrying out the Agency’s core mission.**

**Objective 1.1 – Improve Air Quality:** *Work with states and tribes to accurately measure air quality and ensure that more Americans are living and working in areas that meet high air quality standards.*

**Objective 1.2 – Provide for Clean and Safe Water:** *Ensure waters are clean through improved water infrastructure and, in partnership with states and tribes, sustainably manage programs to support drinking water, aquatic ecosystems, and recreational, economic, and subsistence activities.*

**Objective 1.3 – Revitalize Land and Prevent Contamination:** *Provide better leadership and management to properly clean up contaminated sites to revitalize and return the land back to communities.*

**Objective 1.4 – Ensure Safety of Chemicals in the Marketplace:** *Effectively implement the Toxic Substances Control Act, and the Federal Insecticide, Fungicide, and Rodenticide Act, to ensure new and existing chemicals and pesticides are reviewed for their potential risks to human health and the environment and actions are taken when necessary.*

**Goal 2 – More Effective Partnerships: Provide certainty to states, localities, tribal nations and the regulated community in carrying out shared responsibilities and communicating results to all Americans.**

**Objective 2.1 – Enhance Shared Accountability:** *Improve environmental protection through shared governance and enhanced collaboration with state, tribal, local, and Federal partners using the full range of compliance assurance tools.*

**Objective 2.2 – Increase Transparency and Public Participation:** *Listen to and collaborate with impacted stakeholders and provide effective platforms for public participation and meaningful engagement.*

**Goal 3 – Greater Certainty, Compliance and Effectiveness: Increase certainty, compliance and effectiveness by applying the rule of law to achieve more efficient and effective Agency operations, service delivery and regulatory relief.**

**Objective 3.1 – Compliance with the Law:** *Timely enforce environmental laws to increase compliance rates and promote cleanup of contaminated sites through the use of all of EPA's compliance assurance tools, especially enforcement actions to address environmental violations.*

**Objective 3.2 – Create Consistency and Certainty:** *Outline exactly what is expected of the regulated community to ensure good stewardship and positive environmental outcomes.*

**Objective 3.3 – Prioritize Robust Science:** *Refocus the EPA's robust research and scientific analysis to inform policy making.*

**Objective 3.4 – Streamline and Modernize:** *Issue permits more quickly and modernize our permitting and reporting systems.*

**Objective 3.5 – Improve Efficiency and Effectiveness:** *Provide proper leadership and internal operations management to ensure that the Agency is fulfilling its mission.*

## APPENDIX B

### ORD Reorganization

In October 2019, ORD implemented its first reorganization since 1995. The reorganization enabled ORD to better focus resources on Agency priorities, increase the impact of ORD research, and create a more flexible and nimbler workforce. The 2019 reorganization enabled ORD to optimize FTE utilization, build communities of practice, increase operational efficiencies, and increase consistency in operational processes. The streamlined reorganization consolidated two administrative offices into one, two science coordination offices to one, moved staff from the National Center for Environmental Research into either the administrative or science coordination offices, and realigned three laboratories and three centers into four centers that focus on the science/research being conducted in support of EPA’s core mission and cooperative federalism. In addition to reducing the overhead structure of ORD, the reorganization facilitated inter-dependencies across the organization to better address Agency priorities as described in the EPA Strategic Plan. This reorganization allows ORD to continue to be an asset to the programs, regions, and states and enhances our standing as a leader in environmental research used both in the US and abroad.

