DOT 4355A December 18, 2020

Subject: WATER MANAGEMENT POLICY

1. PURPOSE. This Order conveys policy, delegates authority, and assigns responsibility to ensure that the United States Department of Transportation (DOT or Department) and its Operating Administrations, meet all requirements related to water management, pursuant to the Energy Independence and Security Act of 2007 (EISA), the Energy Policy Act of 2005, the Federal Water Pollution Control Act Amendments of 1972 (Clean Water Act or CWA), Executive Order (EO) 13834, *Efficient Federal Operations*, and other applicable requirements set forth in law, regulations, or executive actions. With this Order, the Department will prioritize actions that increase water efficiency, cut costs, enhance resilience, and enable more effective accomplishment of its mission.

2. CANCELLATION AND EFFECTIVE DATE. This Order cancels and supersedes DOT Order 4355, *Water Management Policy*, issued September 5, 2013. This Order is effective upon issuance.

3. APPLICABILITY. This Order applies to internal DOT actions and activities (e.g., all phases of administration, planning, design, programming, budgeting, operations, maintenance, training, and acquisition) that affect the procurement, supply, and consumption of water within DOT-owned and DOT-leased facilities (direct-leases and General Services Administration (GSA) leases).

    a. For the purpose of this Order, Operating Administration (OA) refers to the nine DOT Operating Administrations, the Office of the Secretary, and the Office of Inspector General.

    b. OAs must comply with all relevant laws, regulations, executive actions, and other directives, including those set forth in Appendix I of this Order, along with any legal requirements not cited herein, or established after issuance.

    c. The requirements of this Order are not intended to restrict or inhibit DOT's ability to fulfill its mission or adversely affect in a material way the Department's operations or the safety of the traveling public.

    d. This Order is intended solely to improve the internal management of the Department. It is not intended to and does not create any right or benefit, substantive or procedural, enforceable by any party against the United States, the Department, or its entities, officers, employees, or agents, or any other person.

e. For the actions contained in this Order, "must" conveys statutory or regulatory requirements, and "should" or "may" convey recommendations for efficient and effective implementation.

4. AUTHORITIES AND REFERENCES. See Appendix I for a list of authorities and guidance documents.

5. DEFINITIONS. See Appendix II for a list of key terms.

6. POLICY. It is the policy of the Department to meet all water management requirements in a manner that increases efficiency, optimizes performance, improves resilience, eliminates unnecessary use of resources, and protects the environment.

   a. The Department will implement a comprehensive potable and non-potable water management strategy at its facilities to reduce consumption of freshwater (groundwater and surface water) sources, and comply with all relevant requirements in the following areas:

      1) Water Conservation and Efficiency;
      2) EISA Section 432 Energy and Water Evaluations;
      3) Stormwater Management; and
      4) Wastewater Management.

   b. Sections 8 – 11 of this Order set forth specific requirements, exclusions, and suggested procedures for efficient and effective water management.

   c. The Department will track and report water management metrics in accordance with federal mandates. Section 12 of this Order sets forth reporting requirements.

   d. Appendix I of this Order lists guidance and resources pertinent to water intensity reduction, building water evaluations, stormwater management and waste water management.

   e. The Sustainability Governance and Engagement directives described in the Overarching Sustainability Policy are intended to facilitate and support OA actions to implement the requirements in this Order.

   f. OAs should also follow requirements related to this Order that are found in DOT's current Sustainable Buildings, Energy Management, Pollution Prevention and Waste Management, and Sustainable Acquisition Policies, or any subsequent updates that supersede them.

7. RESPONSIBILITIES. The following personnel are responsible for implementing this Order.

   a. **DOT Chief Sustainability Officer (CSO):** The Secretary of Transportation has delegated to the Assistant Secretary of Administration the duties of the CSO pursuant to 49 CFR § 1.38(c)(2). The CSO serves as the senior official responsible for the day-to-day management, implementation, performance, and compliance with all applicable energy, environmental, and sustainability statutes, regulations, executive actions, and other requirements. Specific responsibilities of the CSO related to this Order include:

      1) Represent DOT on sustainability matters with officials from the federal Executive Branch, Congress, and all other external stakeholders;
      2) Communicate all energy, environmental, and sustainability requirements to the OAs and reports to the Secretary and Deputy Secretary of Transportation on the adequacy and effectiveness of DOT's implementation;
      3) Coordinate with all appropriate Secretarial Offices and OAs to implement this Order;
      4) Review and approve all sustainability-related reports submitted to oversight agencies, such as the Department of Energy (DOE), the Office of Management and Budget (OMB), and the Council on Environmental Quality (CEQ), on behalf of the Secretary; and
      5) Enter into partnerships with other federal agencies, on behalf of DOT, to advance sustainability performance.

   b. **DOT Assistant Secretary for Administration**: Provides Departmental leadership and develops DOT policy on issues related to human resources, security, acquisition and grants, information services, energy, environmental management and sustainability, transportation, facilities, and space management.

   c. **DOT Senior Real Property Officer**: Oversees the siting, acquisition, and operations of DOT facilities and the integration of the facilities into regional and local planning initiatives.

   d. **DOT Office of the Secretary of Transportation (OST); Office of Facilities, Information, and Asset Management; Energy and Resource Efficiency Program (EREP)**: Specific responsibilities related to this Order include:

      1) Develop energy, environmental, and sustainability policies to improve energy and water use efficiency and reduce costs for DOT facilities;
      2) Provide strategy development, oversight, evaluation, methodology, and assistance for implementation of energy and sustainability policy;
      3) Assist the CSO in communicating all energy, environmental, and sustainability

requirements to the OAs; and

4) Aggregate and assemble data for DOT-wide internal and external sustainability reports.

e. **DOT Office of the General Counsel (OGC):** Interprets and provides guidance on new and existing environmental and sustainability statutes, regulations, executive actions, and other requirements. Reviews contracts and ensures they meet all applicable statutes, regulations, executive actions, and other requirements.

f. **OA Administrator:** Ensures that OA conforms to and implements all applicable requirements for water management set forth in this Order. The OA Administrator may delegate responsibilities as necessary to meet the requirements. Specific responsibilities related to this Order include:

1) Issue data collection requests and analyze data for reporting progress milestones;
2) Incorporate sustainability goals into performance plans and appraisals;
3) Ensure employees with sustainability and/or facility responsibilities receive appropriate training;
4) Communicate new requirements throughout the OA;
5) Ensure that water use information is tracked and reported to the appropriate reporting systems at the minimum intervals;
6) Submit requests, if appropriate, for exemptions to the water management requirements to the CSO; and
7) Ensure that the OA evaluates performance contracts for building renovations and upgrades, and pursue such contracts when they provide the most appropriate financing mechanism.

8. <u>WATER CONSERVATION AND EFFICIENCY</u>. Water conservation can enhance DOT operations by reducing costs for water consumption and wastewater management. Decreased water use can also improve site resilience by reducing the amount of potable water needed for standard operations.

a. In accordance with EO 13834, OAs must reduce potable and non-potable water consumption.

b. In accordance with EO 13834 Implementing Instructions, OAs must achieve a 20 percent reduction in annual potable water consumption as compared to the fiscal year (FY) 2007 baseline.

1) Potable water use is measured by water intensity: gallons of potable water consumed per gross square feet (GSF).

(a) OAs should report the same buildings and associated GSF for water as for energy goal-subject and goal-excluded facilities (per 42 U.S.C. § 8253(a)).

2) OAs must report all potable water use, including water used for irrigation, heating and cooling, equipment, or industrial purposes.

c. In accordance with EO 13834 Implementing Instructions, OAs must demonstrate annual progress in reducing potable water intensity from the prior year.

1) OAs must identify targets for reduction in water intensity for the next FY in the Annual Sustainability Report and Implementation Plan.

d. OAs may take the following adjustments and exclusions when reporting water use data, consistent with methodologies provided in the Annual Energy Data and Management Report instructions issued by the Federal Energy Management Program (FEMP):

1) Where potable freshwater is displaced with alternative water, OAs may deduct alternative water gallons from total potable water consumption;
2) If a significant portion of an OA's building portfolio does not have potable water service, (e.g., facilities that use energy but are unoccupied), the corresponding GSF may be deducted for water use;
3) OAs may exclude water use and GSF for fully-serviced leases (where utilities are included in lease payments); and
4) OAs may also exclude water use and GSF for buildings that are excluded from energy reporting because they are undergoing disposal or major renovation.

e. DOT established its FY 2007 potable water intensity baseline in accordance with CEQ guidance, *Implementing Instructions: Federal Agency Implementation of Water Efficiency and Management Provisions of EO 13514* (July 2013).

1) The baseline is equal to the total potable water intensity across all OA buildings, which is submitted to DOE in the DOT Annual Energy Data Report.
2) Appendix III of this Order describes the requirements for updating the baseline.

f. Pursuant to 42 U.S.C. § 6834(a), OAs must apply water conservation technologies used to meet efficiency standards that are life cycle cost-effective.

g. OAs should ensure new building acquisitions or direct leases meet EO 13834 water management goals, when cost-effective.

h. In accordance with EO 13834, OAs should assess performance contracting opportunities for building renovations and upgrades, and pursue such contracts when they provide the most appropriate financing mechanism, to help meet the water efficiency requirements set forth in this Order.

i. OAs should implement, within two years or soon thereafter, any life cycle cost-effective energy or water conservation measure (ECM) identified as part of a completed EISA Section 432 evaluation under 42 U.S.C. § 8253(f).

    1) OAs may bundle individual ECMs of varying paybacks together into combined projects, but must install ECMs with payback periods of less than 10 years, to the maximum extent feasible under 42 U.S.C. § 8253(b);
    2) OAs should consider water efficiency measures for buildings awaiting disposal, if the measures are life cycle cost-effective prior to demolition;
    3) In accordance with 42 U.S.C. § 8255, OAs must identify funds that they are requesting for ECMs in annual budget justifications; and
    4) Refer to Section 9 of this Order for more information on EISA Section 432 evaluations.

j. Under 42 U.S.C. § 8256(e), OAs may retain any funds appropriated for energy expenditures, water expenditures, or wastewater treatment expenditures that the OA does not actually expend due to ECMs.

    1) Except as otherwise provided by law, such funds may be used only for energy efficiency, water conservation, or unconventional and renewable energy resource projects; and
    2) Such projects are subject to the requirements of 40 U.S.C. § 3307.

k. Consistent with federal, state, and local codes and regulations, OAs should use alternative sources of water where life cycle cost-effective, to reduce demand on potable water sources. Alternative water use may include the following approaches:

    1) Integrate facility design with landscape design to reuse properly treated wastewater and greywater;
    2) Harvest and use rainwater and snowmelt; and
    3) Incorporate the best practices laid out in FEMP's Best Management Practice: Alternative Water Sources.

l. OAs should implement best management practices to conserve potable water sources where consistent with mission requirements. For example:

1) Procure and use Environmental Protection Agency (EPA) WaterSense® Program labeled products;
2) Procure, install and use water-efficient heating, ventilation, and air-conditioning systems;
3) Update routine maintenance procedures to include water system testing and regular leak detection inspections; and
4) Reduce or eliminate the use of potable water for landscaping, irrigation, and water features using methods such as xeriscaping landscape that requires minimal supplemental water, native plants and landscape materials to optimize irrigation water use, and WaterSense® irrigation controllers.

m. OAs should follow the FEMP best management practices listed in Appendix I of this Order for water-efficient heating, ventilating, and air-conditioning systems, where life cycle cost-effective and consistent with mission need.

n. OAs should design and construct new federal buildings and major renovations to use water conservation technologies wherever water is used to achieve energy efficiency, to the extent that such technologies are life cycle cost effective.

o. For leased buildings where they pay directly for water use, OAs should implement cost-effective best management practices to reduce potable water consumption related to the facility operations they manage.

p. To demonstrate compliance with the requirements in this Section, OAs must report progress to OST within the Annual Energy Data and Management Report and the OMB Scorecard for Efficient Federal Operations/Management. Section 12 of this Order contains a summary of relevant reporting requirements.

q. OAs should track water consumption of buildings in ENERGY STAR® Portfolio Manager, if meter data are available.

r. Further information relevant to water conservation requirements for federal facilities can be found in the FEMP Federal Water Efficiency Best Management Practices.

9. EISA SECTION 432 ENERGY AND WATER EVALUATIONS. Comprehensive facility evaluations identify water savings measures to optimize building water performance.

a. OAs that operate covered facilities must comply with Section 432 of EISA (42 U.S.C. § 8253(f)) and DOT's Sustainable Buildings Policy.

1) OAs must complete comprehensive energy and water evaluations for covered facilities at least once every four years (ideally by evaluating approximately 25 percent of the facilities per year).
2) Implement life cycle cost-effective ECMs, and ensure due diligence for any implemented measures following evaluations. See DOT's Sustainable Buildings Policy for further explanation of the requirements.

b. As part of an overall management strategy to reduce potable water consumption, costs, and when implementing ECMs, where life cycle cost-effective, OAs should:

1) Install and use water sub-meters to facilitate the required evaluations, and to track use of potable and non-potable freshwater and alternative water;
2) Use advanced meters to monitor all water consumed by new construction and modernization, or new building acquisitions;
3) Connect the meters to management systems in order to streamline and optimize measurement, management, and reporting of consumption, to the maximum extent possible, where life cycle cost-effective (in accordance with federal building metering guidance);
4) Quantify use of water from local wells or surface water, such as lakes or streams if applicable, by using production meters installed at the source, to the maximum extent possible (in accordance with federal building metering guidance); and
5) Use meter data to complete a water balance analysis to inform ongoing water evaluations and help identify life cycle cost-effective ECMs.

c. In accordance with EISA Section 432, OAs must report findings (potential and approved ECMs, financial investments, and savings) for completed evaluations of covered facilities in the Compliance Tracking System (CTS) at least annually. Section 12 of this Order contains a summary of relevant reporting requirements.

d. OAs should also follow the requirements related to energy and water evaluations and metering that are found in DOT's Sustainable Buildings Policy.

10. STORMWATER MANAGEMENT. Stormwater management provides many benefits, such as reducing water demand and minimizing or avoiding polluted stormwater runoff protecting lakes, rivers, and watersheds.

a. All OAs must comply with statutory requirements related to stormwater management, in accordance with Section 402 of CWA (33 U.S.C. § 1342), Section 438 of EISA (42 U.S.C. § 17094), and EO 13834.

b. For any development or redevelopment projects at a federal facility with a footprint greater than 5,000 GSF, OAs must use site planning, design, construction, and maintenance strategies in order to maintain or restore the pre-development hydrology of the property with regard to temperature, rate, volume, and duration of flow (42 U.S.C. § 17094).

c. Section 402 of CWA requires that stormwater, which contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States, comply with all National Pollutant Discharge Elimination System (NPDES) requirements (see Section 11b of this Order).

d. For facilities that fall within the definition of 40 CFR § 122.26(b)(14)(i)-(xi), OAs must prepare a written Stormwater Pollution Prevention Plan as required by the EPA Multi-Sector General Permit or the state administrated NPDES.

e. OAs must report releases of toxic or hazardous substances due to runoff, including stormwater runoff, in the Toxic Release Inventory as surface water discharges. Section 12 of this Order contains a summary of stormwater reporting requirements.

f. OAs should reduce stormwater runoff impacts to the maximum extent possible, through retrofits to existing sites wherever economically feasible opportunities exist, including:

    1) Green roofs and cisterns for harvesting rainwater;
    2) Permeable pavements; and
    3) Removing curbs from paved lots and allowing stormwater to sheet-flow into adjacent vegetation.

g. OAs should give high priority for retrofits to existing sites without stormwater management plans.

h. OAs should ensure that new facility construction and acquisitions use stormwater management approaches such as low-impact development or green infrastructure, where life cycle cost-effective.

i. Further information and guidelines for meeting the stormwater runoff requirements of EISA can be found in EPA's *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects* (2009).

j. For any new construction or modernization, OAs must meet or exceed EISA Section 438 stormwater management requirements to certify the building as compliant.

k. OAs should also follow the requirements related to stormwater management that are found in the DOT Sustainable Buildings Policy and the Pollution Prevention and Waste Management Policy.

11. WASTEWATER MANAGEMENT. The CWA established the basic structure for regulating pollutant discharges into the waters of the United States. Effective wastewater management prevents degradation of water quality to protect human health and ecosystems.

a. OAs must comply with all federal, state, interstate, and local requirements and administrative authorities for the control and abatement of water pollution, pursuant to Section 313 of CWA.

b. Section 402 of CWA requires that all municipal, industrial, and commercial facilities that discharge wastewater directly from a point source (a discrete conveyance, such as a pipe, ditch, or channel) into a water of the United States (such as a lake, river, or ocean), must obtain a NPDES permit. NPDES permit requirements also apply to stormwater that contributes to a violation of a water quality standard or which is a significant contributor of pollutants to waters of the United States. To comply with the CWA OAs must:

1) Ensure that all facilities obtain a NPDES permit when required;
2) Conduct chemical and/or biological tests on wastewater samples, maintain records, and submit Discharge Monitoring Reports to the EPA, as required;
3) Operate and maintain facility system equipment to ensure that all discharges meet each respective facility's NPDES permit requirements and limitations;
4) Manage domestic treatment works in accordance with sludge requirements;
5) Manage discharges to a Publicly-Owned Treatment Works in accordance with established federal, state, and local pretreatment standards; and
6) As appropriate, apply for Section 404 dredge and fill permits for construction and development projects.

c. OAs must comply with Section 311(b)(2) of CWA (33 U.S.C. § 1321), which sets forth requirements for the discharge of oil and hazardous substances, where applicable. Hazardous substances, as defined in 33 U.S.C. § 3121 are designated at 40 CFR part 116, and 40 CFR part 117 establishes the reportable quantity for each substance.

1) OAs must notify EPA and the state regulatory agency of any facility discharges equal to or in excess of the reportable quantity, following requirements set forth in 33 CFR § 153.203.

2) This requirement does not apply to facilities that discharge the substance under an NPDES permit or a CWA Section 404 permit, as long as the facility has met any applicable effluent limitations or pretreatment standards.

d. OAs should identify and implement opportunities to reclaim and reuse greywater, as described above in Section 8 of this Order, where life cycle cost-effective and consistent with federal, state, and local regulations. In addition to reducing potable water use, this approach has the supplemental benefit of reducing wastewater discharge from the site.

e. Section 12 of this Order contains a summary of wastewater reporting requirements.

f. OAs should also follow the requirements related to wastewater management that are found in the DOT Pollution Prevention and Waste Management Policy.

12. SUMMARY OF REPORTING REQUIREMENTS. OAs must use the monitoring and documentation systems listed in the table below to meet the requirements of this Order. These systems are generally web-based and proprietary to the federal government. Section 8c of this Order lists exclusions and adjustments that OAs may use when reporting water data.

Reporting Module	**Purpose**	**Data Attributes to Report**	**Reporting Frequency**
Annual Energy Data Report	Report data on facility potable water intensity and costs	Refer to the most current version of DOE's Annual Energy Data Report template for required data attributes	Annually, no later than November 15, or date mutually agreed upon between the OA and EREP
Annual Energy Management Report	Provide a summary of activities to meet water management requirements	Refer to the most current version of DOE's Annual Energy Management Report template for required data attributes	Annually, no later than November 15, or date mutually agreed upon between the OA and EREP
Annual Sustainability Report and Implementation Plan	Provide a summary of sustainability strategies, progress, implementation priorities, and planned actions related to water management	Reduction in water intensity from prior year, future performance targets, and strategies to achieve reductions	Annually, no later than March 15, or date mutually agreed upon between the OA and EREP

Reporting Module	**Purpose**	**Data Attributes to Report**	**Reporting Frequency**
Internal OA Sustainability Scorecard	Report OA progress on water management requirements for the Annual Sustainability Report and Implementation Plan and OMB Scorecard for Efficient Federal Operations/Management	Reduction in water intensity from 2007 baseline and from prior year, water cost, explanations for performance declines, and future strategies	As needed to support DOT and internal OA reporting requirements
OMB Scorecard for Efficient Federal Operations/ Management	Report Departmental progress on water management requirements	Reduction in water intensity from 2007 baseline and from prior year, water cost, GSF	Annually, by date specified by OMB. Data derived from federal reporting systems such as the Annual Energy Data Report and CTS
E-Project Builder	Report on ESPCs, Utility Energy Service Contracts (UESC), and direct funded energy and water projects; Required for 2017 DOE indefinite-delivery, indefinite-quantity (IDIQ) ESPCs	Project information, financial schedules, monitoring and verification data	Recommend quarterly reporting to track project information and annual entry of monitoring and verification data
EISA 432 Compliance Tracking System (CTS)	Tracks EISA Section 432 requirements for covered facilities	Annual water use and footprint	Annually, no later than March 31
		Water evaluation findings (potential ECMs, investment, and savings)	Recommended within a month of a covered facility's completed and approved evaluation
		Implemented ECMs (awarded water measures, investment, savings, measurement and verification)	Recommended within 30 days of project completion and formal project acceptance
Toxics Release Inventory Reporting via EPA's TRI-MEweb online reporting tool	Report on releases of toxic and hazardous materials as stormwater runoff, or through discharge of wastewater	Quantity of toxic chemicals entering the environment, transferred annually, disposed of, or otherwise released	Annually, no later than July 1

Reporting Module	**Purpose**	**Data Attributes to Report**	**Reporting Frequency**
33 CFR 153.203 - Procedure for the notice of discharge	Notice of discharge of reportable quantity of hazardous substances	Follow procedure outlined in 33 CFR 153.203	As required
Discharge Monitoring Reports (EPA Form 3320-1 or NetDMR electronic reporting)	Report sample collection and analytical results required by effective NPDES permits	Consult EPA Form 3320-1	As specified in NPDES permits

13. POLICY UPDATES AND/OR REVISIONS. This Order must be reviewed to determine whether updates or revisions are necessary at least once every three years. In the interim, all applicable laws revised by Congress and all new executive actions or guidance related to water management are considered incorporated by reference.

14. POLICY EXCEPTION REQUIREMENTS. OA Administrators may submit a request for an exception to the CSO, through EREP. Approvals for exceptions should be coordinated with OGC.

15. DISTRIBUTION. This Order is distributed to all OST offices listed in Section 7 of this Order, the DOT Senior Real Property Officer, OA Administrators, OA Chief Acquisition Officers, and the Federal Aviation Administration (FAA) Acquisition Executive.

16. CONTACT. If you have specific questions related to this Order, please contact EREP (M-90) at DOTsustains@dot.gov.

FOR THE SECRETARY OF TRANSPORTATION:

Keith Washington

Deputy Assistant Secretary for Administration,
Chief Sustainability Officer

Keith Washington 12/18/2020

APPENDIX I: AUTHORITIES AND REFERENCES.

1. Public Laws and Statutes

   a. Energy Independence and Security Act of 2007 (EISA), Pub. L. No. 110-140. (42 U.S.C. § 17094 and 42 U.S.C. § 8253).
   b. Energy Policy Act of 1992, Pub. L. No. 102-486, as amended by the Energy Policy Act of 2005, Pub. L. No. 109-58 (42 U.S.C. § 6834).
   c. Federal Water Pollution Control Amendments of 1972 (Clean Water Act, CWA), Pub. L. No. 92-500 (33 U.S.C. § 1311-1346).
   d. National Energy Conservation Policy Act of 1978, as amended (42 U.S.C. §§ 8251-8262k).

2. Regulations

   a. Federal Acquisition Regulations (FAR) Part 41, Acquisition of Utility Services (not relevant for the Federal Aviation Administration).
   b. 10 CFR § 436 – Federal Energy Management and Planning Programs.
   c. 33 CFR § 153.203 - Procedure for the Notice of Discharge.

3. Executive Actions

   a. CEQ: Implementing Instructions for EO 13834, Efficient Federal Operations, April 2019.
   b. EO 13834, Efficient Federal Operations, May 2018.
   c. OMB/CEQ Memorandum, Supporting Energy and Sustainability Goal Achievement Through Efficiency and Deployment of Clean Energy Technology, OMB, August 2011.
   d. OMB Circular No. A-11, Preparation, Submission, and Execution of the Budget, June 2019.

4. Guidance and Directives

   a. CEQ: Guiding Principles for Sustainable Federal Buildings and Associated Instructions, February 2016.
   b. CEQ: Implementing Instructions: Federal Agency Implementation of Water Efficiency and Management Provisions of EO 13514, July 2013.
   c. DOE: Facility Energy Management Guidelines and Criteria for Energy and Water Evaluations in Covered Facilities (42 U.S.C. 8253 Subsection (f), Use of Energy and Water Efficiency Measures in Federal Buildings), November 2008.
   d. DOE: Federal Building Metering Guidance (per 42 U.S.C. § 8253(e), Metering of Energy Use), November 2014.

e. DOE: Guidance for the Implementation and Follow-up of Identified Energy and Water Efficiency Measures in Covered Facilities (per 42 U.S.C. 8253(f), Use of Energy and Water Efficiency Measures in Federal Buildings), September 2012.
f. DOE: Guidelines Establishing Criteria for Excluding Buildings from the Energy Performance Requirements of Section 543 of the National Energy Conservation Policy Act as Amended by the Energy Policy Act of 2005, January 2006.
g. EPA: Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act, December 2009.
h. FAA: Acquisition Management System (AMS).

5. Online Resources

a. DOE: Best Management Practices for Water Efficiency, developed by FEMP and the EPA to help agencies increase water efficiency and meet federal requirements:

1) Water Management Planning
2) Information and Education Programs
3) Distribution System Audits, Leak Detection, and Repair
4) Water-Efficient Landscaping
5) Water-Efficient Irrigation
6) Toilets and Urinals
7) Faucets and Showerheads
8) Steam Boiler Systems
9) Single-Pass Cooling Equipment
10) Cooling Tower Management
11) Commercial Kitchen Equipment
12) Laboratory and Medical Equipment
13) Other Water-Intensive Processes
14) Alternate Water Sources

b. EPA: Clean Water Act (CWA) and Federal Facilities
c. EPA: WaterSense
d. EPA: Green Infrastructure
e. FEMP: Water Efficiency in Federal Buildings and Campuses
f. GSA: Facility Management Institute
g. GSA: Resources for green roofs on Federal facilities
h. GSA: Sustainable Facilities Submetering Wizard
i. GSA: Cost-effective Upgrades

APPENDIX II: KEY TERMS.

1. ***Advanced Meter*:** Advanced meters have the capability to measure and record utility interval data hourly or more frequently and communicate the data daily or more frequently to a central collection point.

2. ***Alternative water*:** Water from non-freshwater sources, such as on-site harvested rainwater and stormwater, harvested sump pump/foundation water, greywater, air-cooling condensate, reject water from water purification systems, reclaimed wastewater, or water derived from other water reuse strategies.

3. ***Building*:** Any building, structure, or facility, or part thereof, including the associated energy consuming support systems, that is constructed, renovated, leased, or purchased in whole or in part for use by the federal government and consumes energy; such term also means a collection of such buildings, structures, or facilities and the energy consuming support systems for such collection.

4. ***Comprehensive Energy and Water Evaluation (Evaluation)*:** An inspection, survey, and analysis of energy and water consumption in a building, process, or system to identify conservation opportunities as required by 42 U.S.C. 8253(f)(3)(A).

5. ***Covered Facilities*:** A facility that DOT has designated as subject to the requirements of Section 432 of the EISA (Pub. L. No. 110-140, as codified at 42 U.S.C. 8253(f)), which requires agencies to designate facilities that collectively comprise at least 75 percent of their total facility energy use as "covered." See also the definition of "facility."

6. ***Direct-Leased Building*:** Any building leased by DOT, but not owned by GSA. FAA and the Maritime Administration are the only OAs with the authority to enter into these leasing agreements.

7. ***Effluent*:** Wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

8. ***Energy Conservation Measure (ECM)*:** Energy and water efficiency and conservation measures identified during the comprehensive evaluation conducted pursuant to 42 U.S.C. 8253(f)(3)(A) or otherwise. For the purpose of this Order, the acronym "ECM" will always represent both water and energy efficiency measures.

9. ***Energy Saving Performance Contract (ESPC)*:** A contract that provides for the performance of services for the design, acquisition, installation, testing, operation, and, where appropriate,

maintenance and repair of an identified ECM or series of measures at one or more locations. The contract must meet the requirements in 42 U.S.C. 8287, et seq.

10. ***Evaluation*:** See "Comprehensive Energy and Water Evaluations" definition.

11. ***Executive Action*:** Includes EOs, presidential memoranda, implementing instructions, and other documents issued by the Executive Office of the President.

12. ***Facility*:** Any building, installation, structure, or other property (including any applicable fixtures) owned or operated by, or constructed or manufactured and leased to, the federal government. Facility is used interchangeably with building throughout this Order, based on the original statutory or guidance language.

13. ***Goal-Excluded Building*:** Buildings that are not subject to the energy performance requirements of 42 U.S.C. 8253(a) as identified in accordance with the DOE Guidelines Establishing Criteria for Excluding Buildings.

14. ***Goal-Subject Building*:** Includes those buildings that are not excluded from the energy performance requirements of 42 U.S.C. 8253(a) and are thus subject to the energy intensity reduction goal. DOT has determined its list of goal-subject and goal-excluded buildings under the authority of 42 U.S.C. 8253(a)(2) and 42 U.S.C. 8253(c), and in accordance with the DOE Guidelines Establishing Criteria for Excluding Buildings.

15. ***Green Infrastructure*:** The term "green infrastructure" means the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspirate stormwater and reduce flows to sewer systems or to surface waters.

16. ***Life Cycle Cost-Effective*:** The life cycle costs of a product, project, or measure are estimated to be equal to or less than the base case (i.e., current or standard practice or product) in accordance with 10 CFR 436. Subpart A of 10 CFR 436 describes the life cycle cost analysis methodology.

17. ***Low-Impact Development*:** Systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat.

18. ***Meter*:** An electromechanical or solid state device that cumulatively measures and records aggregated utility usage data for use in customer billing or energy management. See also "advanced meter."

19. ***Modernization*:** A major building renovation that entails comprehensive replacement or restoration of virtually all major systems, interior work (such as ceilings, partitions, doors, floor finishes, etc.), and building elements and features.

20. ***Multi-Sector General Permit*:** A permit issued by EPA under its NPDES program that authorizes and regulates stormwater discharge from industrial facilities, consistent with the terms of the permit, in areas where EPA manages the NPDES permit program.

21. ***National Pollutant Discharge Elimination System (NPDES)*:** A national program under Section 402 of the CWA for regulation of pollutant discharge from point sources to waters of the United States. Discharges are illegal unless authorized by an NPDES permit.

22. ***Non-Potable Water*:** Water that is not of sufficient quality or has not been treated for human consumption.

23. ***Performance Contract*:** A contract that identifies expected deliverables, performance measures, or outcomes, and makes payment contingent on their successful achievement. Performance contracts also use appropriate techniques, which may include consequences or incentives, to ensure that the agency receives the agreed-upon value. Any qualified contractor, including utilities, can conduct performance contracts, which include ESPCs and UESCs.

24. ***Potable Water*:** Water from public or on-site water systems that is classified, permitted, and approved for human consumption. Potable water may also come from alternative water sources if properly treated.

25. ***Pre-Development Hydrology*:** The temperature, rate, volume, and duration of water flow on a site prior to development.

26. ***Single-Pass Cooling Equipment*:** Cooling equipment that uses a continuous flow of water circulated once through the system for cooling purposes, and then disposed.

27. ***Soil Amendment*:** Any material added to a soil to improve its physical properties, such as water retention, permeability, water infiltration, drainage, aeration, and structure.

28. ***Stormwater*:** Water generated from rain and snowmelt events that flows over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground.

29. ***Utility Energy Service Contract (UESC)*:** A limited-source contract between a federal agency and serving utility for energy management services including energy and water efficiency improvements and demand-reduction services.

30. ***Wastewater*:** Water that has been adversely affected in quality by anthropogenic influence, including liquid waste discharged by domestic residences, commercial properties, industry, and/or agriculture. Wastewater may include a wide range of potential contaminants and concentrations.

31. ***Water Balance Analysis*:** Identifies the proportion of water consumption for specific end uses, compares total water supplied against the water consumed for each specific end use, and nets out total water loss (leaks) in a particular building, facility, or campus.

32. ***Water Efficient Product or Service*:** A product or service that uses less water than competing products or services, and serves the same purpose. These include products meeting EPA's WaterSense standards.

33. ***WaterSense*®:** A voluntary EPA program designed to encourage water efficiency in the United States through the use of a special label on consumer products.

34. ***Water Intensity*:** Gallons of potable water consumed per GSF of federal building space.

35. ***Unoccupied*:** Occupied one hour or less per person per day on average.

36. ***Xeriscaping*:** Landscaping based on native, water-efficient plants to minimize the need for irrigation.

APPENDIX III: ADJUSTMENTS TO WATER INTENSITY BASELINE.

1. DOT uses the FY 2007 potable water intensity baseline established in the DOE guidance, *Implementing Instructions: Federal Agency Implementation of Water Efficiency and Management Provisions of EO 13514* (July 2013). The baseline is equal to the total potable water intensity across all buildings, which DOT submits to DOE in the DOT Annual Energy Management Report and Energy Data Report.

    a. To ensure a consistent comparison against the FY 2007 baseline, DOT may only submit requests for modifications to OMB and CEQ under the following circumstances:

        1) Future law, regulations, or guidance documents require such a change;
        2) DOT implements significant organizational or mission changes;
        3) DOE changes the relevant reporting requirements or improves estimation or calculation methodologies; or
        4) DOT discovers errors in the baseline data or calculations.

    b. In order to make adjustments to the established baseline, OAs must provide a written request with justification to EREP for approval.

    c. OAs and EREP will work together to refine and document the updated baseline in accordance with DOE guidance, as necessary.