STATE OIL / GAS AGENCIES RELATIONS: At the request of the acting RA, I organized and conducted a series of meetings with our state regulatory partners to discuss coordination in addressing issues and concerns related to the oil and gas industry. We traveled to each state capital to meet jointly with the lead state environmental and state oil & gas regulatory agency. This effort is in support of Administrator Pruitt's July 2017 commitment for increased coordination and collaboration between EPA and the state regulators of oil and natural gas exploration and development.

The meetings were held on December 6: (Oklahoma Secretary of Energy and the Environment [Mike Teague and Tom Robins], Oklahoma Corporation Commission [Tim Baker, Charles Lord and others], and Oklahoma Department of Environmental Quality [Scott Thompson).

December 14 (New Mexico Environment Department [Butch Tongate and Richard Goodyear] and New Mexico Energy, Minerals, and Natural Resources Department [Ken McQueen, Matthias Sayer, Phillip Goetze, Allison Marks, David Catanach, Jim Griswold, Daniel Sanchez, and Bill Brancard]).

December 20 (Arkansas Oil and Gas Commission [Larry Bengal and Shane Khoury] and Arkansas Department of Environmental Quality [Becky Keogh, Caleb Osborne, Stuart Spencer, Heinz Braun, and Mitch Rouse]).

January 9 (Louisiana Department of Environmental Quality [Chuck Carr Brown, Roger Gingles, Perry Theriot, Mike Algero, Denise Bennett, Carey Dicharry, Percy Harris, Donald Trahan, Herman Robinson, Elliott Vega, Lourdes Iturralde, and Greg Langley] and Louisiana Department of Natural Resources [Tom Harris, Richard Ieyoub, Steven Giambrone, Stephen Lee, Brent Campbell, and John Adams).

January 17 (Texas Commission on Environmental Quality Keith Sheedy, Ramiro Garcia, Susan Jablonski, and Kelly Keel Linden] and the Railroad Commission of Texas [Lori Wrotenbery]).

NATIONAL OIL & NATURAL GAS ROUNDTABLE: Regional Administrator and I participated in the U.S. Environmental Protection Agency (EPA) cosponsored two-day oil and natural gas roundtable cosponsored by the Environmental Council of States (ECOS) and the Interstate Oil and Gas Compact Commission (IOGCC). Oil and natural gas stakeholders from states, tribes, industry, trade groups, and environmental non-governmental organizations (eNGOs) participated in the discussions. The roundtable was organized to enhance coordination and communication, and ensure responsible domestic energy production.

OFFSHORE CRUDE EXPORT TERMINALS: Since November, I have led the discussions with MARAD, USCG, and EPA regarding how emissions from loading of Very Large Crude Carriers and

Ultra Large Crude Carriers would be regulated, including applicability of the Marine Terminal MACT Subpart Y. The Region has been contacted by 3 companies interested in pursuing MARAD licenses under the Deepwater Port Act to export crude. MARAD and USCG have been contacted by 2 additional companies with similar interests. And in February, LOOP (already licensed for import operations) started to operate in an export mode.

LOUISIANA OFFSHORE OIL PORT: LOOP is a joint venture of Marathon Pipe Line LLC, Shell Oil Company, and Valero Terminal and Distribution Company. Under the Deepwater Port Act (DPA) of 1974, the Department of Transportation (DOT) originally licensed LOOP as an offshore oil import facility in 1976. LOOP has operated as an import DPA terminal since 1981. LOOP has both onshore / near shore and offshore facilities. Onshore / near shore facilities and discharges are regulated by Louisiana Department of Environmental Quality (LDEQ) under the Clean Water Act (CWA) and Clean Air Act (CAA). The Offshore Marine Terminal is part of the LOOP Deepwater Port Complex and is located roughly 18 nautical miles off the coast of Louisiana, in the Gulf of Mexico in Federal waters. The Offshore Marine Terminal consists of a pumping platform, control platform and three single-point mooring buoys used for the offloading / on-loading of crude tankers. The Maritime Administration (MARAD) for DOT and the US Coast Guard (USCG) assume lead agency responsibilities for consulting with other Federal and State agencies under the DPA. LOOP submitted a request to amend the Operations Manual contained in the existing DPA license to convert a portion of the existing crude oil importing operation to accommodate crude oil exporting operations, which were initiated on February 16, 2018. To date, LOOP has loaded crude to 2 Very Large Crude Carrier vessels. The USCG and MARAD are serving to integrate the project analysis and consultation required in accordance with the National Environmental Policy Act (NEPA) and the DPA. LDEQ and Region 6 have individually and now jointly issue the CWA NPDES permit for onshore, near shore (state waters) and offshore (Federal waters) discharges. The last NPDES permit expired over 4 years ago, but has been administratively extended for existing discharges while a new permit with additional discharge points can be proposed and finalized. LDEQ has issued CAA permits for only the onshore emission points. There has never been a CAA permit (Title I or Title V) application for emissions from the Offshore Marine Terminal. LOOP's position is that they are not subject to EPA jurisdiction under the CAA. This is not the position of EPA, MARAD, Department of Interior nor USCG. The recently initiated export operations may subject LOOP to the Subpart Y Marine Terminal Loading MACT requirements of the CAA.

BROWNSVILLE SOLAR PROJECT: ORD / Region 6 RESeS project, Brownsville Solar Economy Model was selected in 2017 for funding. Originally proposed and managed by Laura Gomez, officed in Brownsville, I was made the Region 6 lead when she returned to EPA HQs last fall. The objective of this project is to respond to City of Brownsville's needs on environment and economic siting assessment for their Public Utility Board on-going Solar Power planning using ORD EnviroAtlas interactive tools and data layers such as EnviroAtlas Community land cover classes, heat island and EnviroAtlas solar potential project models (see detail description in Approach section). The research objective of this project is to examine the use of LiDAR, impervious surface, photovoltaics of solar for siting selections, and validate EnviroAtlas Rooftop Suitability model for solar economy and local job opportunities in Brownsville community. The

base research has been completed and the scienitific paper is in the ORD technical journal review process. The results will be shared with the City later this summer.

PRODUCED WATER MANAGEMENT: Eureka Resources is proposing to construct and operation a wastewater treatment facility in New Mexico for produced water from the Permian Basin. The initial unit would be designed to process 200,000 barrels/per day and cost approximately $660,000,000 to construct. The potential is for 2 additional units for a capital expenditure of $1,500,000,000. In addition to creating distilled water suitable for return to the oil production company for reuse or discharge to the Pecos River, the by-products for sale are sodium chloride, calcium chloride, and lithium. The company will need to obtain from EPA Region 6 a NPDES permit for the surface water discharge. The permit will need to comply with NEPA and cross-cutting statutes such as the Endangered Species Act and the National Historic Preservation Act.