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Nuveen Natural Capital's approach to sustainable water management

Rising populations and expanding economies are demanding fresh water in greater supply. Climate change globally is increasingly threatening to limit our freshwater sources. These forces require strategic responses to manage fresh water efficiently and effectively.

Nuveen Natural Capital recognizes this criticality and has consistently set out to optimize efficient water use in our operations. We seek to be informed by best practices and technical innovations, and always operate within regulatory frameworks. Sustainable water management is integral for agriculture to thrive.

Our approach to water management in our operations is guided by six principles over time, some of which have more relevance in different geographies.

1) **Prioritize long-term water supply reliability when selecting properties.** We strive to be informed by best-in-class technical experts and climate modeling to seek sustainable dual-source water supply, of both surface water and groundwater.

2) **Optimize land use based on water characteristics**. Match crops to soil type and water availability, and where water supplies do not match projected demand over the long term, develop alternative land use strategies that seek to enhance value and maximize natural capital attributes.

3) **Pursue opportunities to improve water supply**, both local and on-farm, whenever possible.
   - **Recycle and recover water overflows**. Pursue use of desalinated or treated wastewater where possible and attempt to recover tailwater in furrow and flood-irrigated crops.
   - **Develop recharge facilities**. Support flood risk management, groundwater sustainability, and long-term water supply availability by pursuing the development of groundwater recharge projects. Groundwater recharge returns excess surface water to the underground aquifer in wet years, which can be sustainably drawn from in dry years for the benefit of multiple users.

4) **Prioritize efficient water demand management throughout farming operations.**
   - **Install water-saving infrastructure** to minimize loss and maximize water delivery to crops, including drip and micro sprinkler systems and adding impervious lining to reservoir and canal systems where possible.
   - **Adopt technology to monitor water use and maximize efficiency**, including:
     - Pursuing real-time plant water stress monitoring to target irrigation activities to plant water requirements;
     - Adding remote sensing technologies to monitor soil moisture and evapotranspiration, enabling optimal water application and detection of irrigation repair needs;
     - Developing real-time tracking of water usage using telematics to remotely gather data and inform decision-making; and
     - Pursuing automation in irrigation systems, timed- or pressure-linked shut off and controls for precise irrigation events.

- **Implementing practices to improve soil health** through cover cropping, compost and biochar applications, Whole Orchard Recycling, etc. With better soil structure, infiltration of water into the soil improves, which enhances soil moisture retention.

5) **Develop local and global expertise in water management.** Local regulations vary in form and maturity across the diverse global geographies in which we operate. Such regulations may include overland flow capture, restricted pumping, registration of infrastructure and the monitoring and reporting of usage. Our team has detailed knowledge on local water policy and compliance, and shares best management practices globally.

6) **Continuous improvement and collaboration mindset.** We strive to improve operational sustainability by collaborating with leading universities, cooperative extensions, and industry experts. We support emerging technology providers in product development trials and promote and support water sustainability projects across our water districts and agencies.