



1/29/26

The Honorable Camille Calimlim Touton
Commissioner
Bureau of Reclamation
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

VIA ELECTRONIC MAIL

mtouton@usbr.gov, crbpost2026@usbr.gov

Re: Healthy Soils Strategies for Post-2026 Colorado River Operations Guidelines

Dear Commissioner Touton:

We write to express our strong support for the inclusion of climate-friendly, regenerative, healthy soil practices within the post-2026 Colorado River Guidelines as both a general requirement for farmers and ranchers receiving Colorado River Water and also for those participating in fallowing programs or other related agricultural incentives. We believe this request lines up well with President Biden's funding priorities, including especially the U.S. Department of Agriculture's historic investments in climate-smart agriculture that USDA has made since the beginning of his administration. Our letter represents common interests among a diverse set of partners from Colorado, California, and Arizona, including a former Metropolitan Water District Board member, a rancher, a restaurateur, soil health experts, community composters, environmental policy experts, and nonprofits working together toward a bright and water-safe future for the entire Southwestern United States and the Colorado River Compact States we call home.

Agriculture uses 80% of the river's water – the largest user – and this industry is crucial for the nation's food production. Yet it also strains our limited water resources. Institutionalizing best soil practices that are already quickly spreading throughout the United States can save growers money and significantly reduce long-term water use. However, it is not enough to hope that market forces alone will deploy best practices for soil health and water conservation. The crisis of the Colorado River demands that regulatory action be taken expeditiously to ensure water use is efficient and that best practices become the norm.

This letter will provide: **definitions** of healthy soils practices; **benefits** of these practices including especially significant water conservation; **background** of the related work going on in California and Colorado, and elsewhere; and conclude with our **recommendations for rulemaking** and opportunities for **partnership and collaboration**.

Our ultimate recommendation: The benefits of soil health best practices, including significant and measurable water conservation, should be included in the Bureau of Reclamation's analyses and development of post-2026 Colorado River Guidelines, and strategies must be developed and enacted to incent and require best practices and disincent inefficient water use among agricultural industry operations dependent upon the increasingly precious resource of water throughout the Colorado River basin.

DEFINITIONS AND PRINCIPLES

A basic working definition of climate-friendly, regenerative, healthy soils practices is: a process of regenerating living ecosystems by restoring carbon, water, and nutrient cycles which enhance soil health, water & air quality, biodiversity, resilience, and economic outcomes.

Short Definition of Regenerative Agriculture: Agriculture that is causing regeneration (increasing landscape function, i.e., the role land area plays in contributing to the overall health and resilience of the agricultural system over time).

The 7 Principles of Regenerative Agriculture:

1. **Restore Soil Health:** Apply an initial layer of compost to degraded working lands.
2. **Least Disturbance:** No/low till, no/reduced chemicals, less compaction.
3. **Living Roots:** Maximize above ground photosynthesis in order to continue pumping liquid carbon sugars into the ground to feed microbes and build/maintain soil health.
4. **Armor the Soil:** Keep the soil covered with living plants or crop residue, wood chips, or mulch. Bare soil gets much hotter at midday & more vulnerable to evaporation and wind/water erosion
5. **Increase Biodiversity:** Biodiversity of plants and animals increases beneficial biodiversity below and above ground as well as increases the functionality and resilience of the ecosystem.
6. **Animal Integration:** Appropriately integrated, animals big and small play a pivotal role in nutrient cycling and regenerating landscapes.
7. **Context:** No two farms are alike. From brittle environments to more moist ones, from different crops to livestock, and from no funds to extensive funds, context is key. Because how you will go about regenerating land will vary and depend on many key components, a. A holistic framework is necessary to transition to regenerative successfully.

[Note: these principles are universal for attaining the goals within this definition. They should not be confused with context-specific practices. The principles are widely agreed upon as the United States Department of Agriculture/ Natural Resources Conservation Service, for example, uses 4 of these as the “soil health” principles.]

Common Regenerative Agriculture Practices (including but not limited to the following): cover cropping, crop rotation and diversification, planned grazing, reduced/no-till, composting, reduced/eliminated chemical usage, windbreaks, pollinator habitat, tree planting/agroforestry.

Applied Science and Information: Regenerative Agriculture, as defined above, has occurred around the world since time immemorial. However, most agriculture has proven to cause land degradation over time while in production. Regenerative practices restore the land for ongoing healthy use. Today, regenerative agriculture combines three interrelated pillars of information and implementation: **Indigenous knowledge, holistic management, and use of the latest and best science and technology.**

What Regenerative Agriculture is not: Heavy tilling, leaving bare ground, heavy chemicals usage, overgrazing/over rest, CAFOs (Concentrated Animal Feeding Operations), annual systems, no windbreaks, and mono-cropping. Or simply agriculture that causes degeneration.

BENEFITS OF HEALTHY SOILS IN THE AGRICULTURAL SECTOR

The specific and measurable benefits of the practices that build and retain healthy soils are significant enough to attract partnerships and resources, including those outlined in the Background section. Benefits include:

- **Improved Water Retention:** Healthy soils with high organic matter content hold water more effectively, reducing reliance on irrigation, and mitigating drought impacts.
- **Enhanced Carbon Sequestration:** Restoring soil health promotes carbon capture and storage, contributing significantly to climate change mitigation efforts.
- **Increased Crop Productivity:** Investing in soil health practices leads to healthier crops, improved yields, and long-term agricultural resilience and sustainability.

RECOMMENDATIONS FOR POST-2026 COLORADO RIVER OPERATIONS GUIDELINES

We urge the Bureau of Reclamation to:

- **Develop clear and measurable criteria for healthy soil practices** that farmers and ranchers receiving Colorado River Water, as well as those participating in fallowing programs or other related agricultural incentives, are required to implement, including:
 - **Cover cropping and/or composting and mulching** (as appropriate for effective soil armoring): Requiring farmers to plant cover crops during fallow periods protects the soil from erosion, promotes organic matter content, and suppresses weeds. And/or requiring the use of composted materials and organic mulches can further improve soil health and moisture retention.
 - **Reduced tillage practices**: Minimizing tillage practices helps maintain soil structure, beneficial microbial communities, and organic matter content.
 - **Regenerative/Adaptive Multi-Paddock Grazing**: Requiring ranchers to regularly move livestock from one paddock to another allows plants to recover, and promotes deeper root growth, increased soil organic matter, and improved water filtration.
 - **Incorporation of crop rotation, crop diversity, and plantings for pollinator, biodiversity or other ecosystem benefits.**
- **Require and assist in the development of a soil health management plan**: This plan should outline strategies for improving organic matter content, soil biology, and overall soil health over the course of multiple years.
- **Offer financial and technical assistance and educational programs** to help farmers adopt these practices effectively.
- **Consider providing incentives or rewards for farmers** who implement soil health practices, and tax credits or other financial incentives to organizations and businesses that fund soil health practice implementation.
- **Data collection and monitoring**: Track the impact of these practices on soil health, water use efficiency, and carbon sequestration, and develop partnerships that continue to develop the knowledge base for an ever-improving application of science and information.
- **Encourage the other Colorado River Compact states to adopt legislation similar to California's SB 1383** to require the creation of compost from food waste and its application on both public and agricultural working lands.
- **Include the benefits of soil health best practices in your analyses and development of post-2026 Colorado River Guidelines**, and acknowledge that in a No Action scenario, agricultural users of Colorado River water will unnecessarily divert and lose significant amounts of water that would otherwise be available to protect river health and overall supply conditions.

- **Qualify the definition of agricultural beneficial use of Colorado River water to incent soil health best practices**, and use water pricing accordingly to disincent inefficient uses of water and other practices that degrade soil health. In other words, agricultural practices that use water inefficiently should be paying more for water.
- **Alter Existing Fallowing Programs to Further Improve Water Efficiency and Other Benefits.** Fallowing programs offer a crucial tool for water conservation of the Colorado River Basin. However, simply taking land out of production is a missed opportunity. By incorporating healthy soil practices during fallow periods, we can achieve multiple benefits and minimize unintended negative impacts:
 - **Reduced Soil Erosion:** Practices like cover cropping and no-till farming prevent wind and water erosion, protecting valuable topsoil and ecosystem health.
 - **Enhanced Soil Fertility:** Implementing practices that promote microbial activity and organic matter build-up will improve soil fertility for future agricultural use.
 - **Replenished Ecosystem Services:** A holistic, regenerative vision of fallowed land would ensure that it contributes to biodiversity and ecosystem health to help deliver the value of ecosystem services beyond the fallowing period. This is akin to putting one's savings into an interest bearing account rather than under the mattress.
 - **More Efficient Resumption of Agriculture:** Naturally fostering soil health during a fallow period will reduce the inputs needed to resume agricultural use, saving financial and water resources over time.

Partnership Opportunities and Benefits:

We urge the Bureau to explore partnerships with organizations specializing in climate-friendly, healthy soils, regenerative agriculture practices, such as People Food and Land, Zero Foodprint, and Kiss the Ground. These organizations possess extensive knowledge and experience in promoting healthy soil practices. Their expertise could be invaluable in developing effective guidelines and providing training and support to farmers.

Collaboration among these organizations, academia, practitioners of regenerative agriculture, and local Tribal and community expertise will ensure:

- **Science-based approaches:** Implementation of the latest research and techniques in soil health improvement.

- **Farmer engagement:** Development of programs that are accessible, practical, and beneficial to farmers, particularly in-person training workshops that correspond with online training material.
- **Long-term sustainability:** Creation of a program that fosters a healthy Colorado River ecosystem while supporting the resilience of agricultural communities.

Investing in healthy soils is an investment in our collective future. By implementing these recommendations, the Bureau of Reclamation can ensure that the post-2026 Colorado River Guidelines promote both water conservation and long-term agricultural sustainability for the Colorado River Basin and the entire Southwestern United States.

Thank you for your consideration. We are available to engage in deeper conversations regarding these issues.

Sincerely,

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APPENDIX

Background of Healthy Soils Work in California and Colorado

Facing a bleak future of drought, wildfire and flood disasters, the states of California and Colorado, the City of Los Angeles, the Metropolitan Water District, and other essential agencies and organizations began heavily accelerating regenerative, healthy soils agricultural education, research and practices. The future of both the water supply and the food supply depend significantly upon their success.

The **State of California** is working with organizations like the American Farmland Trust to provide technical and financial assistance to farmers adopting these methods. The State legislature adopted SB 1383, the Short-Lived Climate Pollutant Reduction Strategy, which requires all

jurisdictions to provide organic waste collection services to all residents and businesses, and to recycle these organic materials using recycling facilities such as composting facilities that make soil amendments.

The **State of Colorado** launched its Restore Colorado program with Zero Foodprint and Mad Agriculture to connect food businesses with local agriculture, and support regenerative farming and soil health across the state.

In 2020, **the City of Los Angeles** initiated its RegenerateLA healthy soils program, targeting carbon sequestration (the storage of carbon) as a means to both eliminate food waste from landfills and thereby remove greenhouse gasses from the atmosphere. LA's Sanitation, Street Services, and Recreation and Parks Departments were tasked with creating a healthy soils strategy to build healthy soils on City-managed lands, including parks, medians and parkways. From this has come partnerships with community composters using locations on City-owned lands.

In 2022, consistent with its adopted [Climate Action Plan](#), the **Metropolitan Water District**, began conducting a five-year research program to increase Metropolitan's knowledge of regenerative agriculture and carbon sequestration opportunities on Metropolitan properties in the Palo Verde Valley. The agency provided official comments on the California State Board of Food and Agriculture work to create a legal definition of "regenerative agriculture" and has released a [Regenerative Agriculture Fact Sheet](#) entitled: "Restoring Land and EcoSystems." Formed in 1928 to build the aqueduct and bring water from the Colorado River, across the Mojave Desert, to Southern California, the Metropolitan Water District is a state-established cooperative that, along with its 26 cities and retail suppliers, provides water for 19 million people in six counties in Southern California.

In 2024, **Northern California rancher John Wick, partnering with NASA Senior Research Scientist Christopher Potter**, began work on a high-resolution technology mapping platform called the COMMONS planner that will identify the soils and lands best-suited and appropriate for compost application, beginning in California, including LA County, and aiming to expand throughout the Southwest and eventually the United States. Certain soil types are appropriate and primed for compost to maximize crop success and carbon sequestration, while others are not. As part of its [Parks Needs Plus Assessment](#), LA County is working out how to use healthy soils as a remediation plan for Brownfields and abandoned oil drilling sites.

Background of Signatories

Paul Koretz is a former Los Angeles City Councilmember who termed out of office in 2022. He has also been a Metropolitan Water District Board member, a California State Assembly member and former Mayor of West Hollywood. One of his primary focuses while in office was mitigating the long-term impacts of climate destabilization and long-term water security for Southern California. He was the author of the RegenerateLA healthy soils initiative.

John Wick is a rancher/co-owner of the Nicasio Native Grass Ranch and retired co-founder of the Marin Carbon Project, which aims to improve carbon sequestration in rangeland, agriculture and forest soils. He is currently working with NASA Senior Research Scientist Christopher Potter on a high resolution technology platform that will identify the soils and lands best suited for compost application, beginning in California and aiming to expand throughout the country.

The People Food and Land Foundation works to implement Governor Newsom's executive order to incorporate nature-based climate solutions and scale climate-smart land management, and supports communities; agricultural producers; and individual leaders in practice, science, and advocacy to further the adoption of soil health practices and the creation of high-quality compost.

The non-profit, **Zero Foodprint**, works to change the food system from the ground up, teaming up with businesses across the food system to fund regenerative farming practices that build healthy soil and sequester carbon.

Andy Shrader is an environmental policy and program consultant. He led the City of Los Angeles' initiation of its RegenerateLA healthy soils effort. He currently facilitates the Compost Project efforts to expand healthy soils practices throughout the West. He grew up in Flagstaff and has worked on Colorado River/Grand Canyon issues for much of his adult life.