

To the Davis City Council: Please vote for conservation easements on Leland Ranch

This letter is from a group of concerned conservation biologists supporting votes by the Davis City Council in favor of acceptance of the NRCS grant for conservation easements on the Leland Ranch (Mace 391) property. In this statement, we emphasize the value of sustainable agriculture and wildlife conservation that would be supported by these conservation easements, and we question the authority of the City Council to make this land available for uses not described in Measure O.

What is sustainable agriculture?

“Sustainable agriculture is the management and utilization of the agricultural ecosystem in a way that maintains its biological diversity, productivity, regeneration capacity, vitality and ability to function, so that it can fulfill, today and in the future, significant ecological, economic and social functions at the local, national and global levels, and that does not harm other ecosystems”¹.

If the NRCS grant is accepted, 27 acres of land will be set aside for sustainable community farming practices. Unlike conventional farming, sustainable agriculture (or agroecology) is based on a scientific approach, which integrates local ecological processes, cultural context, long term goals, and economic profit². The establishment of this community farm will bring together community members and provide spillover benefits to surrounding agricultural land.

What are some sustainable agricultural practices?

Depending on the crops farmed, there are numerous sustainable agricultural practices that could be enacted on the land. Some practices we are likely to see on these 27 acres are crop rotation, planting of cover crops, no-till and low-till farming, soil management, diversity in crops planted, nutrient management, and integrated pest management systems². These different practices are beneficial to different parts of the agroecological system. Crop rotation, cover crops, no/low-till farming, and soil management are important practices for soil conservation³. These practices limit soil erosion, salinization, or acidification. Similarly, nutrient management seeks to limit fertilizer application to prevent runoff into adjacent waters, which can cause major issues for drinking water contamination, lake, and stream pollution⁴.

What are the benefits of these practices for biodiversity?

Beyond these benefits to soil and water, sustainable farming has numerous benefits to biodiversity of plants and animals. Agroecosystems generally have two different types of biodiversity, planned and unplanned⁵. Planned biodiversity consists of the many different types of plants that can be present in sustainable farming operations as well as any livestock or beneficial fauna farmers introduce to the system (ex: biological control agents). Associated biodiversity are those animals and plants benefitting from the structure of the agroecosystem⁵. While sustainable farms provide habitat for these plants and animals, associated biodiversity also benefits the farm by increasing the ecosystem functions of the land, such as pollination

services, nutrient cycling, soil stabilization, etc.⁵. These benefits have the ability to spill over into the surrounding landscape. For example, cover cropping and low/no-till systems not only improve soil quality, but provide habitat for the numerous insect and spider species which are capable of inhabiting agricultural lands⁶. These organisms not only benefit crop yields by reducing pest populations⁶, but form the base of the food web for other charismatic species of birds, mammals, and reptiles.

What are the ecological benefits of the remaining open space?

Leaving the Leland Ranch lands as open space will benefit important wildlife species such as the state threatened Swainson's hawk, while aiming for industrial park development will reduce the land available to conserve valuable wildlife species.

Yolo County has some of the highest territory densities of Swainson's hawk in the state of California, likely due to the agricultural landscape of Yolo county⁷. The Swainson's hawk, other raptors, bats, and a number of shorebirds use the agricultural open space present outside of Davis and in surrounding areas as foraging habitat⁷. Boundaries of the agricultural fields could also be used as nesting habitat by burrowing owls, a popular species among bird watchers⁸. Development of this area will prevent these species from using the area in the future.

Does the City Council have legal authority for a land trade?

The land was purchased using Measure-O funds, which are specifically designated for "the acquisition, operation, and maintenance of lands and easements for open space, habitat and agricultural uses and preservation in the areas surrounding the city" ([Article 15.17, Davis Municipal Code](#)). These funds come from an annual tax that Davis residents elected to pay in 2000 (Ord. 2033 § 1), and thus, it is the City Council's legal obligation and fiduciary duty to use those funds to fulfill the purposes that the Davis Code defines. This Code has been created by the residents of Davis for the residents of Davis, and cannot be violated by the City Council. Thus, there should not be a question of an alternate use that does not fit within the realm of agriculture, habitat, or open space, as that violates the law.

Are we willing to risk future funds and our relationship with the Yolo Land Trust?

The Yolo Land Trust applied for a highly competitive USDA grant of \$1.125 million in 2011 with the understanding and confidence that the Davis City Council would follow through on their commitment to put a conservation easement on the Mace Curve Property. The application was done with the explicit approval of the Davis City Council, and it was successful in securing the funds. The City of Davis has partnered with Yolo and Solano Land Trusts and USDA on nine farmland conservation grants since 2004, and this is the second-largest grant to date that they have acquired.

After being awarded the grant on April 18, 2011, USDA gave an original deadline for closing the easement of March 31, 2013. In March of 2013, USDA granted an extension of that deadline to June 15th, 2013. On June 11, 2013, the City of Davis again approved of the resale of the

property with permanent conservation easement, and subsequently, in July, Yolo Land Trust entered into a cooperative agreement with USDA, and have received an additional extension ([10-22-13 City Council Meeting Staff Report](#)).

If the Yolo Land Trust ultimately has to return these funds to the U.S. Treasury – after applying for them with the City Council’s explicit support – it will damage the reputation of the Yolo Land Trust as well as the City of Davis. It will also make it exceedingly difficult for the Yolo Land Trust to successfully compete for federal farmland protection dollars in the future, which will impact Davis and the surrounding area.

Opening the potential for an industrial park on Leland Ranch would be an abuse of the City Council’s authority, whereas continuing with the conservation easements will preserve its relationship with the Yolo Land Trust.

Please follow through with the NRCS grant funding and conservation easements on Leland Ranch at the November 19th City Council meeting.

We are members of the Policy Committee of the Davis Chapter of the Society for Conservation Biology. However, this statement reflects our individual views and not those of the Society for Conservation Biology.

References:

¹Lewandowski, I., M. Härdtlein, and M. Kaltschmitt. 1999. "Sustainable crop production: definition and methodological approach for assessing and implementing sustainability." *Crop science* 39.1: 184-193.

²Horrigan, Leo, Robert S. Lawrence, and Polly Walker. 2002. "How sustainable agriculture can address the environmental and human health harms of industrial agriculture." *Environmental health perspectives* 110.5: 445.

³Elements of the Nature and Properties of Soils by N.C. Brady and R.R. Weil, 3rd ed., 2010.

⁴Gruhn, Peter, Francesco Goletti, and Montague Yudelman. 2000. *Integrated nutrient management, soil fertility, and sustainable agriculture: current issues and future challenges*. Vol. 2033. Washington, DC: International Food Policy Research Institute.

⁵Altieri, Miguel A. 1999. "The ecological role of biodiversity in agroecosystems." *Agriculture, Ecosystems & Environment* 74.1: 19-31.

⁶Pimentel, D., Stachow, U., Takacs, D., Brubaker, H., Dumas, A., Meaney, J., O’Neil, J., Onsi, D., and Corzilius, D. 1992. "Conserving biological diversity in agricultural/forestry systems." *BioScience* 42.5: 354-362.

⁷Estep. 2008. The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (*Buteo swainsoni*) in Yolo County, California. Prepared by Estep Environmental Consulting for the Yolo Natural Heritage Program, Woodland, CA.

⁸Klute, D., Howe, W., Sheffield, S., Ayers, L., Jones, S., Zimmerman, T., Green, M., and Shaffer, J. 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. U.S. Fish and Wildlife Service Biological Technical Publication.