ASSESSMENT INTERVIEW SUMMARY REPORT

Madera County Sustainable Agricultural Land Conservation Program

As one demand management action related to implementation of the Groundwater Sustainability Plan (GSP) adopted to meet the Sustainable Groundwater Management Act (SGMA) requirements, the Madera County GSA (County) is undertaking a study to develop a Sustainable Agricultural Land Conservation (SALC) program. The program would incentivize setting land aside for dry land farming, or retiring the land for a short or long duration, helping ensure that the SGMA groundwater sustainability goal is met while using existing and future water supplies efficiently and promoting groundwater recharge to maintain a productive agricultural sector for future generations.

One component of the study will develop criteria for different types of agricultural land in the county, and features of that land that may align with program goals. The study will also develop a proposed incentive structure for agricultural land conversion or preservation in specific areas based on the land categories identified in the analysis. In addition to conforming to a diverse range of existing federal, State and local policies, guidelines and regulations, the program will be informed by stakeholder input. Input is being collected through various channels, beginning with stakeholder interviews. Stakeholder interviews were conducted to gather information from a representative cross-section of stakeholders affected by changes in agricultural land use and policies/programs anticipated under the Groundwater Sustainability Plan (GSP). Interviews were conducted with individuals representing the following groups:

- California Milk Producers Council
- Madera County Cattlemen's Association
- Leadership Counsel for Justice and Accountability
- Self-Help Enterprises
- Madera County Farm Bureau
- Madera Ag Water Association (MAWA)

Input from the interviewees is summarized below. Interview details are confidential, so the summary below describes themes, trends, interests, and differences in stakeholder perspectives but no comments are attributed to a specific participant. Also, the particular set of interviewees, although chosen to represent a variety of interests, present a small sample, so the number of people who subscribe or don't subscribe to a particular view should not be taken as meaningful. The intent of this report is to lay out different views and highlight some ideas that might be helpful to the County at this point of the process.

SALC PROGRAM STRUCTURE

A key theme from the interviews is the need to balance certainty and flexibility within the SALC program structure. Interviewees recognized the need for the County and the Subbasin as a whole to ensure that long-term water use aligns with the sustainability goals set forth in the GSP; and that using a structure

that prioritizes long-term commitments to keeping land unirrigated will help the County's planning. For landowners, there is a need for increased certainty about water supply in the near term, however they also need flexibility for the future.

Interviewees said that long-term conservation, in particular in perpetuity, is a hard sell and landowners are likely to be interested in shorter-term commitments. An interviewee emphasized that land is a farmer's biggest asset, providing equity so that they can take out loans and make investments; a key question for farmers is how they will be able to leverage the value of their land if they participate in a program like this.[1]

Interviewees said that growers want to keep their future options open and viable; a participant said that many growers understand that there are few options for augmenting water supply in the County and would be willing to fallow land, however they would want to maintain the ability to return that land to farming at a later time.

Interviewees said that longer-term commitments would be more viable if the program structure allows changes to the particular land enrolled, allowing realignment based on the value of a crop as well as the agronomic value of the land. For example, a landowner may have a parcel that has a 20-year-old almond orchard in one area where the land has high agronomic capacity and a 10-year-old orchard in another area with lower capacity land. The landowner should be able to temporarily retire the land with the older orchard first, keep the younger orchard through its productive cycle, and then replant the area where the land is better and maintain the other area unirrigated for the remainder of the commitment.

One interviewee suggested a hybrid system in which land enrolled in a 'diversion' program, with a specific term of water use restriction, would receive water credits that could be traded between users. These credits could be purchased by other landowners or even a GSA. The parcel of land under the water use restriction would also be changeable, so that both the land earning the credit and the land on which the water credit is applied are flexible. The instrument restricting water use could be an agreement with the GSA or a permanent easement. This system would be something like a partial water market but could be implemented before a full water market to shed light on how the system might function in practice. It would provide a long-term guarantee of the total water use reduction within a given jurisdiction while providing significant flexibility to individual landowners. Another interviewee suggested a similar system in which land removed from production could be brought back into production by buying back water credits.

Another need in terms of flexibility is the ability to 'repurpose' land during the period over which a landowner has committed not to irrigate it, while still being able to return it to farming afterwards. Interviewees shared ideas about what might be done with lands during the time they are enrolled in a SALC program; for details, see the section titled Land Uses and Restrictions below.

[1] The SALC Study consultant team notes that a SALC program would compensate participating landowners for changing irrigation/land use, however the program would not be able to prevent changes in land values that are likely to result from the broader process of SGMA implementation.

TIMING

Interviewees shared various perspectives related to program timing, including about the length of commitments within the program and about the timing of program implementation. Regarding the former, one interviewee said that people might be interested in making commitments as short as a 90-day growing season. Another suggested using a rolling, evergreen contract with a 10-year base unit, similar to the structure of the Williamson Act. Another suggestion is to use a very long-term contract, between 50-90 years, but to allow the parcel under the contract to be changed. Interviewees also said that many landowners are likely to assume that the program will include easements in perpetuity. An interviewee noted that for the many who grow tree crops, a shorter-term commitment will only make sense when a crop has reached the end of its productive years, as the growers need to secure a return on their investment. For these growers, the program will be incentivizing them to not re-plant rather than to take out land currently in production.

An interviewee said that the fact that land use in the region is constantly changing will affect interest in the SALC program. There may be more interest in participating in the program now, when wells are close to going dry, than in the future.

An interviewee said that decisions growers are making now are colored by uncertainty about demand management actions in the Subbasin; providing increased certainty will allow people to make the decisions that they know are rational. For example, landowners understand that due to water supply limitations, some land will need to be fallowed and replanting at this time is likely not advisable. However, they are concerned that taking land out of irrigation now will put them at a disadvantage later when programs like water allocation are implemented. Knowing how and when the various demand management actions will be implemented will allow landowners to make decisions and commitments that they would otherwise be reluctant to make. The interviewee said that if landowners could enroll in programs now, they would do so in order to have more certainty.

One interviewee identified a potential progression for developing and implementing demand management actions so that they build upon one another. They suggested beginning with a non-transferable water allocation, so that each landowner chooses how to distribute their allocation among their acreage. These allocations could then evolve into transferable water credits, which could then evolve into a complete water market. In this way, the final system can be responsive, and kinks can be worked out at each stage before adding an additional layer of complexity.

FACTORS IN DECISION-MAKING

Interviewees identified potential key factors for decision-making – either by the County or by potential participants in the SALC program, or both. As mentioned above, an interviewee noted that growers are currently making decisions based on incomplete information about how the suite of GSP projects and management actions will be implemented. The specifics of when and how the various programs will be run are key to landowners' decision-making about participation in a SALC program.

Multiple interviewees noted the tension between the interests of an individual farmer and the broader needs and interests in the Subbasin. For example, agricultural interests in the Subbasin would not want to see urban encroachment on prime farmland, but an individual landowner may be interested in the financial return on developing their land into housing. Similarly, a SALC program may find that landowners are interested in enrolling certain sections of their land while keeping others in production, creating a fragmented patchwork of areas that are potentially available for environmental uses. However, from the perspective of the County and for the use and enjoyment of some County residents, it would likely be preferable to have various acreages in the SALC program either next to each other, contiguous to parks, and/or providing buffer zones next to residential areas. One interviewee emphasized the need to balance public policy, taking a broad view of lands that would be advantageous to continue or not continue to farm in the County due to factors like soil quality and environmental values, with the landowners' individual choices, based on the particulars of their operation, land, and values.

Additionally, multiple interviewees said that decisions about whether to participate in a SALC program will ultimately come down to economics – are the incentives offered by the SALC program in line with the current value of water and of what they can produce on the land?[2] However, they also emphasized that the economics are particular to each landowner and will change over time as the value of water and crops fluctuate. For example, the economics of water supply will differ throughout the County, with groundwater pumping costs varying based on factors like low water levels or sand in the groundwater, which will in turn impact a landowner's potential interest in a SALC program. An interviewee said that there is not a comprehensive dataset about the differential costs of water; well drillers and pumpers are likely to have the most comprehensive understanding of conditions in different areas, however this information would be anecdotal. Additionally, a farmer that recently made a large investment such as drilling a new well would be less likely to choose to stop cultivating their land in the near-term, even if their land is not considered to have a high agronomic value. Similarly, for tree growers, tree age will be a significant factor.

For dairies in particular, since cropping operations are likely to be the most affected by SGMA, and since they can transition to buying feed rather than growing it if need be (at an additional cost and with limits), this might allow them additional flexibility to participate in the SALC program. Dairies will need to determine what to do with nutrient water that has previously been applied on their cropping operations, an issue that will be exacerbated by SGMA implementation. However, the participant said that this is a known issue that the dairy industry has been working to address and is not likely to impact the SALC program in particular.

Additional decision-making factors include the potential value of the land if it becomes unirrigated, for example if it is transitioned to rangeland, solar power production, habitat, etc. (See the section titled Land Uses and Restrictions below for discussion of potential uses of land moved out of irrigated production.)

[2] The SALC Study consultant team notes that the incentives offered by the SALC program will be in line with the other demand management actions, however they are not likely to align with pre-SGMA implementation land value.

One interviewee also emphasized that personal values and worldview can be an important decision-making factor for some landowners.

Given the variety of reasons stated above, multiple interviewees acknowledged that there are too many factors to measure to be able to accurately determine what economic decision each landowner might make. Instead, they suggested there should be significant flexibility in the program to allow individuals to decide whether and how to participate over time, and, as discussed above, the public policy prioritization should not be overly prescriptive about lands that should or should not participate.

INCENTIVES

As noted above, interviewees said that participation in a SALC program will be a largely economic decision for landowners. One interviewee said that the revenue[3] generated per acre annually is an important starting point for determining the incentives, however since land in the program would not require the same level of investment each year, the incentives would not need to be equal to annual revenue. On the flip side, the incentive needs to account for the maintenance costs that will be required on land taken out of production. (See the section titled Land Uses and Restrictions below for more on maintenance costs.)

An interviewee said that if the program provides flexibility to bring land back into production, growers are more likely to approach participation as a voluntary contribution for a period of time. However, as discussed in the timing section above, tree crops cannot generally be fallowed temporarily; given the amount of land dedicated to tree crops, the incentive will need to make the lost investment worthwhile.

An interviewee said that the biggest incentive growers will have for fallowing land is the flexibility of the water allocation. If a grower is able to apply water they would have used on a certain area on a different area, they will voluntarily stop irrigating some of their land. As noted in the previous section, the program should not become overly prescriptive in its attempt to be strategic.

One interviewee suggested considering amplifying the incentive by creating a structure in which money received as a program incentive would be taxed at a lower rate than other income.

Interviewees also shared ideas about the process through which the incentives could be established. One interviewee advocated for a bidding process as a good way to establish value while giving people a sense of control in the process. Two examples were shared:

- The Kern County GSA has a fallowing program that aims to fallow 200 acres to support demand reduction. They initially offered $300 per acre but no landowners chose to participate. They subsequently opened a bidding process through which a rate of $600 per acre plus waiver of the $150 GSA fee was set.
- The Palo Verde Irrigation District has a land fallowing program which provides an up-front payment of $3,000 per acre plus an additional yearly rate for lands fallowed. Landowners must

[3] The SALC Study consultant team notes that the SALC program may consider net income (i.e., profits), but not gross revenue.

commit to participating in the program for 35 years; during those years, they must fallow between 7-30% of their total acreage each year, and can fallow the maximum amount for up to ten of the 35 years. In addition to the up-front payment, landowners receive $700 per acre fallowed each year. The actual land fallowed can be changed from year to year; the land fallowed can even be owned by a different person, so long as the total amount meets the minimum commitment.

Setting Priority Areas

Interviewees discussed factors that should be considered in setting priority areas for the program, including equity, environmental needs, and types of farmland. As discussed above, some also warned against being overly specific in identifying areas for inclusion in the program; an interviewee said that this can be both inefficient and increase opportunities to "game the system."

One interviewee suggested identifying preferential areas where incentives would be higher, such as areas farther from the river. An interviewee said that lands currently cultivated in both tree and row crops should be included. Another interviewee suggested focusing the SALC program on land that would be best suited to environmental uses, and allowing the rest to be decided economically. One interviewee said that the land itself is not the most important factor for the program and, as discussed above, it is important to provide flexibility in terms of the particular land kept unirrigated at a given time.

Multiple interviewees discussed the importance of creating accountability for larger farmers to cut back their usage so that small farmers do not go out of business while large farms continue to expand. For example, one interviewee suggested incentivizing or requiring that all growers move to 90% irrigation to ensure that growers of all sizes contribute to the overall reduction. Another interviewee expressed concern that a moderate incentive would appeal only to those farmers in the most precarious financial situation, leading small farms to go out of business. The interviewee advocated for developing an incentive structure that could support sustainable farmers, small farmers, and socially disadvantaged farmers to continue farming.

An interviewee said that the SALC program has the potential to address SGMA goals while also addressing other community needs. They suggested prioritizing and incentivizing land retirement to create a buffer zone around residential areas, particularly disadvantaged communities. This would help address health risks related to water and air quality, such as dust, pesticides, and lowering water tables.

Land Uses and Restrictions

Interviewees said that, in addition to the questions of how to get landowners interested in the program and determining which lands to include, the SALC program will need to clarify what will be done with land that is taken out of irrigation. Multiple interviewees emphasized that fallowed land has the potential to become a problem due to dust emissions, weeds, or other issues. One interviewee said that unirrigated land must still be managed, so the SALC program should provide funding and/or support for that management. Some growers will likely be interested in using fallowed land for recharge, however this option will not be viable in all areas.

Additionally, multiple interviewees said that it is important that landowners be able to get value out of their unirrigated land, whether transitioning to rangeland, seasonal grains, habitat restoration, a blend like rangeland restoration, solar, or other uses. One interviewee said that any land not currently developed should remain rangeland.

Multiple interviewees suggested that the SALC program could provide an opportunity to incentivize multi-benefit projects, such as helping communities access drinking water or providing parks and green spaces adjacent to communities while also taking land out of irrigated production and creating the buffer zones mentioned above. One interviewee said that added incentives could be provided for using community-led processes to make decisions about land-use changes related to the SALC program. Interviewees suggested that projects like community wells, sewers, or recharge basins could be located on land taken out of irrigation.

Third-Party Impacts

Multiple interviewees discussed the impacts that demand reduction programs like SALC will have on communities beyond the landowners participating directly in the program, for example on workers, supporting industries, and tax revenue. One interviewee said that the SALC study should acknowledge these impacts and provide examples of how these impacts have been mitigated in other areas. The interviewee said that the Palo Verde Irrigation District fallowing program, discussed above, includes a fund to compensate for community impacts of the program and a community board to direct the funds; the interviewee noted that this program is funded by the entity that purchases the water saved through the fallowing program, a key difference from a Madera SALC program. The interviewee acknowledged that funding for mitigation may be challenging in Madera. An interviewee said that the GSA should consider how mitigation of third-party impacts related to a SALC program could be incorporated into efforts such as its community water supply and water quality program.

An interviewee said that job loss is an important impact of SGMA implementation and the SALC program should address how land taken out of production can be leveraged to provide other jobs.

Other Demand Management Actions

The suite of demand management actions and supply augmentation projects included in the GSP are highly interrelated and interviewees shared perspectives on monitoring, allocations, water markets, and recharge projects and how they might all fit together with a SALC program.

An interviewee noted that there is some uncertainty in the Madera Subbasin water budgets, so the first step in GSP implementation should be to monitor and charge for water use. They said that using LandIQ to monitor water use is cheap, at less than one dollar per acre each year, and could be implemented quickly. They said that this information will provide a needed baseline of information to support successful implementation of GSP projects and management actions.

As discussed in the incentives section above, some interviewees believe that the water allocation structure could serve as an important incentive for taking land out of production. One said that an

allocation system which allows farmers to use their total allocation anywhere within their parcels would lead to some areas becoming unirrigated without necessitating a dedicated diversion program. An interviewee noted some challenges of an allocation system, including whether to allocate water to all lands or only those currently irrigated, whether to allow for transfer of water between landowners, and how to prevent hoarding of water credits.

An interviewee suggested beginning demand management with a non-transferable water allocation, evolving into a transferable water credit, and then evolving into a full water market. One said that there is enthusiasm about a water market, however it will have complex consequences and should not be implemented before there is robust monitoring and improved management of water use. Another interviewee said that there is a range of reactions to a potential water market. Some landowners are well positioned to purchase water and are looking forward to a water market, others will be unable to buy additional water but are willing to sell water, others who are likely to leave agriculture and are likely to be interested in a SALC program, and others are committed to maintaining agriculture in the Subbasin and will not make decisions from a purely economic angle.

Challenges and Additional Considerations

Participants identified a few additional challenges related to landowners' likely level of interest in a SALC program. One interviewee noted that the program is presented as voluntary, however many landowners may feel they are in a bind that makes participation in a program like this necessary. Another interviewee said that growers may be open to the idea of receiving incentives to take land out of production but may be less amenable to paying for others to receive such incentives. An interviewee said that clarity is critical about what a landowner will be relinquishing in exchange for the incentive. Another interviewee said that there seems to be an endless increase in fees and taxes associated with existing easements. Another interviewee said that the SALC program should take a worst-case scenario in terms of the potential supply increase, planning for a need to reduce demand at a high level. Regarding funding the incentive program, an interviewee noted that the Integrated Regional Water Management groups could be a potential source of funding.

Additional Outreach

Finally, interviewees were asked if they had suggestions for others to reach out to. One suggested talking with growers who experienced allocations during the last drought, such as those on the west side of Fresno County, to help identify short- and long-term strategies to help growers through GSP implementation. Another interviewee said it is important to talk with both larger and smaller growers, who have different expertise and concerns. And another interviewee suggested doing in-depth outreach with a handful of growers to understand their perspectives and the context of their decision-making.