

## **Sun Valley GSA Stakeholder Advisory Committee Meeting**

### **Item III: Choosing projects and management actions**

You are part of the Sun Valley Groundwater Sustainability Agency's Stakeholder Advisory Committee. At this meeting of the advisory committee, the GSA board has asked you and your fellow stakeholders to review the proposed projects and management actions

Your sub-basin, the Sun Valley sub-basin, has only one GSA, the Sun Valley GSA. Sun Valley GSA has determined that the sub-basin's **sustainable yield is 100,000 acre feet (AF)**, but the sub-basin is **currently using 150,000 AF** of groundwater, so your sub-basin needs to **decrease** its use of groundwater by **50,000 AF**.

You represent one of the stakeholders described below. Based on your interests, collaborate with the other stakeholders to select projects and management actions that will decrease your groundwater use and reach your sustainability goal.

#### **Farmer Nelly:**

- Wants to do recharge basin on their farm property
- If the GSA decreases the amount of water that they can use, this may decrease their crop yield
- May want to sell their groundwater pumping rights as part of a groundwater market, since they may get more from selling those rights than from growing crops with a limited water allocation.
- May be interested in converting to less water intensive crops, although this would mean that their farm would not increase its profit in upcoming years.

#### **Lucas, Resident of Burr (disadvantaged community):**

- Burr is a low-income community where every home is on its own groundwater well. Groundwater levels in the community are low, and the community's wells are shallow, and families cannot afford to deepen their wells. Madison thinks the community needs groundwater recharge nearby, and cannot afford to have groundwater levels depleted in the area.
- Worried about the impact of groundwater recharge basins groundwater quality. Groundwater recharge basins can contribute to groundwater contamination if the water used to recharge is contaminated, or if the soil over which the basin is constructed is contaminated with agricultural chemicals or other contaminants.
- Worried about groundwater markets taking away groundwater from under their community. Their community has low groundwater levels, and large farmers right next to their community could buy up lots of pumping rights and deplete groundwater levels under their community.

#### **Manuel, Environmental Advocate:**

- Wants groundwater recharge basin in wetlands or along riverbanks, since these projects will have multiple benefits: not only will they increase groundwater levels, but they will help riparian habitats and wetland habitats, and create more recreation and tourism.

- Concerned about the potential impact of groundwater markets on water supplies in certain parts of the basin, but sees it as a potential way to allow farmers to decrease their groundwater usage without facing financial hardship.

**Lin, City of Hamilton resident**

- Wants stable water supply for the City of Hamilton, and concerned that surface water supply could decrease with climate change, so they are uneasy about any projects to switch the city’s drinking water supply to surface water. Also concerned that surface water is not as clean as groundwater.
- Wants to ensure that drinking water supplies in the sub-basin are protected.

**Miranda, Irrigation District President:**

- Wants to do groundwater recharge using the surface water that the district uses.
- Could benefit economically from operating the conveyance infrastructure (canals, diversions, etc.) to transport more surface water to users in the basin for “in lieu” recharge.

Your options for projects and management actions are the following. Assume that your GSA is already planning on implementing a monitoring network that will help measure whether the sustainability goal is being achieved, and that there is only one management area.

<b>Project</b>	<b>Impact on groundwater use</b>
Groundwater Recharge Basin A	Adds 20,000 AF of groundwater
Groundwater Recharge Basin B	Adds 10,000 AF of groundwater
Increasing surface water supply for agriculture by purchasing more water from a water contractor (“In lieu” recharge)	Decreases groundwater use and substitutes surface water use for 20,000 AF of groundwater
City of Hamilton converting half of its drinking water to surface water	Saves 5,000 AF of groundwater
Drinking water conservation measures requiring households to only use 50 gallons per day	Decreases groundwater use by 5,000 AF
Crop conversion: farmers incentivized to change to less water intensive crops	Decreases groundwater use by 30,000 AF
Groundwater Allocation Option A: Every acre can only pump 1 AF	Decreases groundwater use by 20,000 AF
Groundwater Allocation Option B: Every agricultural acre can pump 2 AF, and every municipal or residential acre can pump 0.5 AF per year	Decreases groundwater use by 20,000 AF
Groundwater Market	Together with either Groundwater Allocation options A or B, decreases groundwater use by 10,000 AF