

# Heavy Use Area Protection and Livestock Watering Tank

## Component FAQ

### 1. How are the new components used and what is included?

The new HUAP components are listed below. Planners may use these components instead of itemizing the individual costs separately. These items were created following the NRCS standard and represent the average livestock watering system used in ACSP. Only the items listed are included in the average cost. Any additional items should be contracted separately.

- HUAP- fine grading, geotextile, stone (does not include excavation) per SqYd
- HUAP-fine grading, concrete (does not include excavation) per SqYd
- HUAP-for tanks and troughs: fine grading (does not include excavation), geotextile, stone, 44.4 SqYd (400 SqFt) per Each
- HUAP- for tanks and troughs: fine grading (does not include excavation), concrete, 44.4 SqYd (400 SqFt) per Each
- TANK-watering (fixed)/Pressurized 2-Hole Watering Tank (20 - 28 gal.), concrete pad
- TANK-watering (fixed)/Pressurized 4-Hole Watering Tank (33 gal.), concrete pad
- TANK-watering (fixed)/Pressurized 2-Hole Watering Tank (44 gal.), concrete pad
- TANK-watering (fixed)/Pressurized 4-Hole Watering Tank (70 gal.), concrete pad

### 2. What if the HUAP is larger than 44.4 square yards (20' x 20')?

The sized HUAP components are based on the minimum size of 20' x 20'. For larger areas planners may add the SqYd component to cover the excess area. For example, for a 25' x 25' gravel HUAP, the components would be: 1 unit (EACH) HUAP-for tanks and troughs: fine grading (does not include excavation), geotextile, stone, 44.4 SqYd (400 SqFt) and 25 units (SqYd) HUAP- fine grading, geotextile, stone (does not include excavation).

### 3. What is fine grading?

Fine grading or finish grading includes the smoothing of the pad and area around the pad equal to ½ the pad size.

### 4. How to account for excavation?

Excavation and grading are site dependent. The planner should determine what type to use based on the site characteristics, such as topography and soil type.

### 5. Does the included geotextile account for overlap?

Yes, overlap is included.

### 6. What is the assumed size of the concrete pad?

The cost for the concrete pad was based on a pad size of 7' x 7'.

### 7. How much stone is included?

The amount of stone included is to fill the stated volume 8" deep and compact to 6".