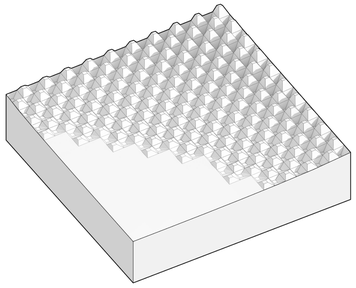
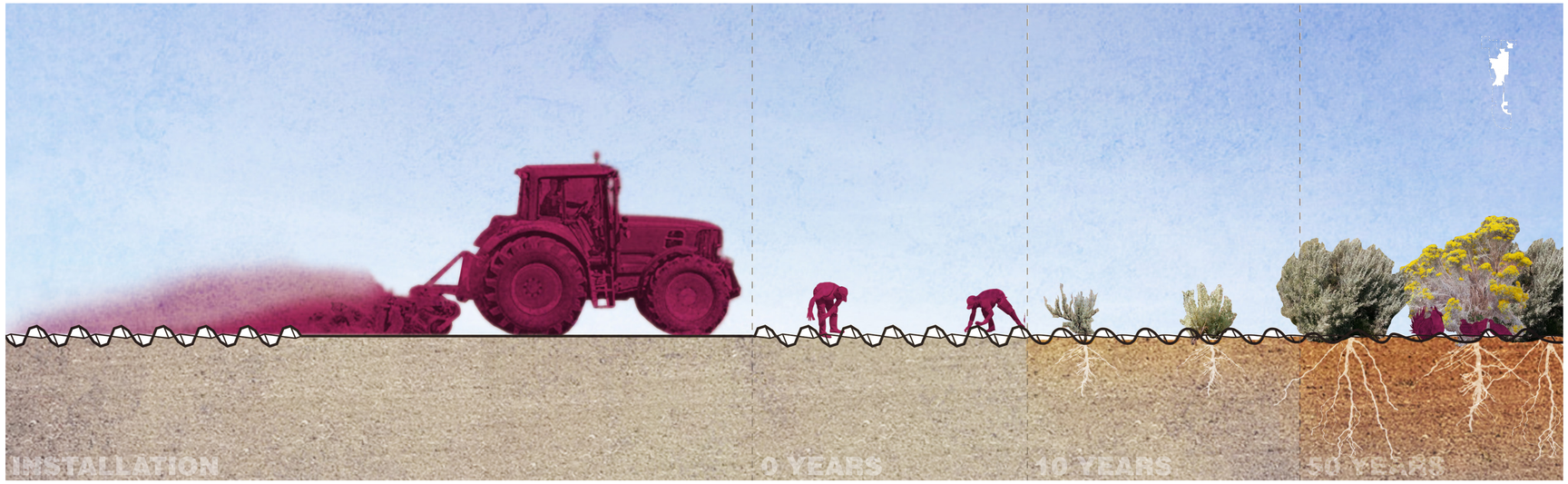
DESIGN STRATEGIES

IMPRINT + COLLECT

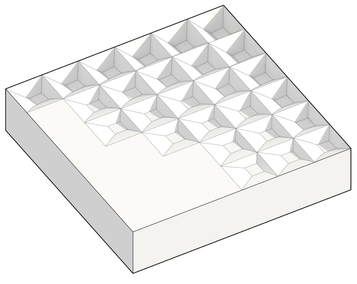
Over the first zone, where soil has a higher clay and silt content and lower sand content, **IMPRINTING** creates areas for water and plant litter to collect. Land imprinting is a simple technology where a vehicle or tractor pulls a land imprinting device, roughens the surface, slows material movement, and increases the capture of resources. Here, biological soil crust, made up of cyanobacteria, lichen, and mosses, can establish, adhering and stabilizing soil particles, improving water infiltration, sequestering carbon, and providing habitat for microorganisms. Over time the modified surface shelters establishing vegetation critical to the sage-grouse, such as Great Basin Sagebrush (Artemisia tridentata), Greasewood (Sarcobatus vermiculatus), and Rabbitbrush (Chrysothamnus spp.).

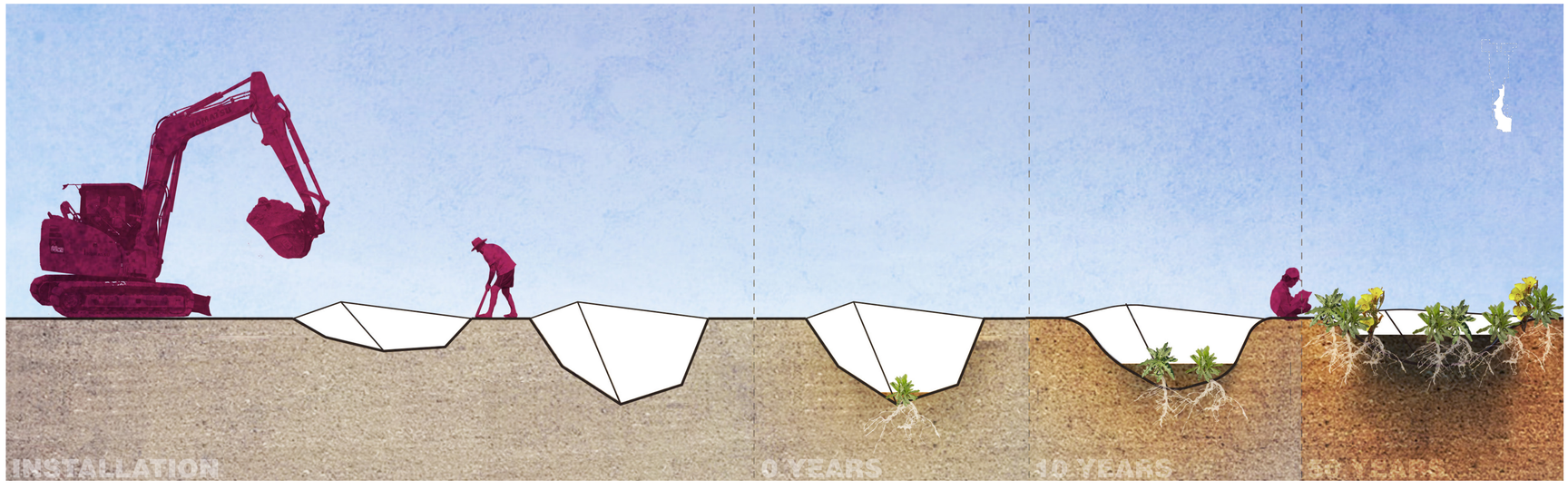




DIG + INFILTRATE

Where the soil is highly permeable, and not suited for sagebrush restoration or rebuilding soil crust, **DIGGING** creates pockets to infiltrate runoff water, recharge the aquifer, and saturated soil. This area is also generally flat and down slope from adjacent topography, has ephemeral streams, and has groundwater close to the surface. Along the edges of each depression, improved soil will encourage vegetation such as Dandelion (Taraxacum spp.), legumes (Fabaceae), and Western Yarrow (Achillea millefolium), and insects such as cicadas, western harvester ant, and Cabbage white butterfly, to establish and grow.





PILE + ENRICH

Through **PILING** organic matter, such as human waste, food scraps, and biodegradable paper and packaging, in areas with deep, sandy loam, and well-drained soil, compost can provide needed nutrients to the soil for native and adaptive vegetation to grow. These are also areas with high levels of invasive vegetation and disturbed soils, which out-compete the Great Basin Sagebrush (Artemisia tridentata) and create fire hazards. The act of piling new organic matter will suppress invasive vegetation, such as Saltcedar (Tamarix spp), Cheatgrass (Bromus tectorum), and Western Juniper (Juniperus occidentalis), in place, decompose, and enrich the soil.