

Landscape Features to Infiltrate Water

Rock Structures Slow and Spread Surface Flow

Rock Structures

Rock structures have been used since ancient times to influence the flow of water. Today, rock check dams are most commonly used to stabilize channels. Rocks can also be strategically placed across broad land surfaces that do not have defined channels. These structures slow and spread the flow of water, allowing water to infiltrate into the soil.

Rock structures are relatively easy to install, primarily completed by hand unless larger rocks are needed. They may be only one rock high and shaped to influence flow dispersion. Adaptable to different situations and land uses, they are very effective and provide many benefits.



Challenges

- Dry soil repels water instead of absorbing it.
- Rain water runs off carrying topsoil and contaminating surface water.
- Soil (just below the surface) remains dry after it rains, perpetuating drought conditions.
- Vegetation declines and soil degrades over time, exacerbating the problem and increasing the potential for floods.
- Exposed soil heats to extremely high temperatures and continues to repel water and further stress vegetation.
- Culverts collect and focus water, which can cause erosion and degrade existing channels.
- Erosional gullies form and continue to deepen and degrade the land and water.



Benefits

Rock structures help to slow and spread water across the land providing many benefits. They:

- Minimize the potential for erosion and flooding.
- Allow water to infiltrate into the soil instead of running off.
- Increase vegetation and improve soil, which further helps to retain moisture and readily absorb additional moisture.
- Encourage healthier native vegetation that will replace weeds that are typically symptoms of degraded soil conditions.
- Develop resilience to drought because soil retains moisture and vegetation becomes healthier.
- Increase infiltration to groundwater, replenishing depleted groundwater and feeding late season flows to surface water (critical for sustaining water supplies for drinking and irrigation).
- Improve water quality, reducing water treatment costs and supporting fish.

