

# X

**Xenobiota** — *Biota* displaced from its normal habitat; a chemical foreign to a biological system.

**Xeric** — Describing an organism that requires little moisture or a habitat containing little moisture; dry environmental conditions as compared to *Hydric* (wet environmental conditions) and *Mesic* (moderate environmental conditions).

**Xeric Shrubs** — Shrubs that are adapted to survive in areas of low precipitation. Common to Mediterranean climates that have moist cool winters and warm dry summers. A limited amount of moisture is present but does not occur at optimum periods for plant growth. Irrigation or summer fallow is commonly necessary for crop production.

**Xeriscape™** — Landscaping with native and naturalized plant species that are adapted to survive in areas of low precipitation. [*Trademark Note:* The term “Xeriscape” is a trademark of the National Xeriscape Council, Inc., and accordingly must always be capitalized, must always be used the first time with a “™” symbol, and can only be used as an adjective, e.g., Xeriscape landscaping, a Xeriscape garden, etc.]

**Xerophyte** — Any plant growing in a habitat in which an appreciable portion of the rooting medium dries to the wilting coefficient at frequent intervals. A drought resistant plant; a plant which grows in arid areas.

**X–Year Flood** — The magnitude of a flood which has a 1-in-*X* chance of being exceeded in any future one-year period. For example, a 2–year flood would have a 1-in-2 (50 percent) chance of exceedence in any one year; a 10–year flood, a 1-in-10 (10 percent) chance; a 100–year flood, a 1-in-100 (1 percent) chance, etc. These values are statistically derived, using past flood records. They are used for many reasons, but especially for engineering drainage and water supply structures. As the occurrence of floods is random in time, there is no guarantee that there will not be two *X*–year floods within a given year. There is also no guarantee that there will be an *X*–year flood in an *X*–year time period, or even in a 2*X* period. Finally, an *X*–Year, *Y*–Duration Rain will not necessarily produce an *X*–year flood. Storm duration and intensity, antecedent moisture and other conditions can cause *X*–year rains to produce more or less than *X*–year floods. For example, a 100–year, 6–hour rain over a very dry basin may only produce a 2–year flood, whereas a 5–year, 6–hour rain over a saturated or burned basin could cause a 100–year flood. Also see *Hundred Year Flood*.

**X–Year, Y–Duration Rain** — The magnitude of rainfall which has a 1-in-*X* chance of being exceeded in any future one-year time period with a duration of *Y* [hours or days]. *X*–year rains must have durations associated with them; e.g., 25–year, 6–hour rain, 50–year, 24–hour rain, 100–year, 10–day rain, etc. These values are statistically derived using past rainfall records. Also referred to as *Rainfall Duration-Frequency*. Also see *X–Year Flood*.

**Xylem** — The supporting and water-conducting tissue of *Vascular Plants*, consisting primarily of tracheids and vessels; woody tissue.