



Why Vail supports restored local control



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VAIL, COLORADO

GORE CREEK

Gore Creek—the clear, rocky mountain stream that runs through the heart of Vail—offers a peaceful respite for residents and visitors, important wildlife habitat, and a water supply for downstream communities. But despite its beauty, the river's health is threatened. Here's a run-down of the challenges and the many ways we can all play a part in the solution.

102 SQ. MILES DRAINED | 19 MILES LONG

13,200 PEAK ELEVATION

7,700 BASE ELEVATION

THE CHALLENGE



IMPROPER USE OF CHEMICALS

When pesticides or fertilizers are applied incorrectly, on windy days, or before a storm, they can make their way into the Creek at harmful levels.



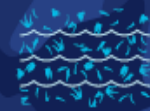
WINTER MAINTENANCE

Traction sand, de-icers and cinders used to treat icy roads increase dissolved solids, chloride and conductivity in streams.



PAVED SURFACES

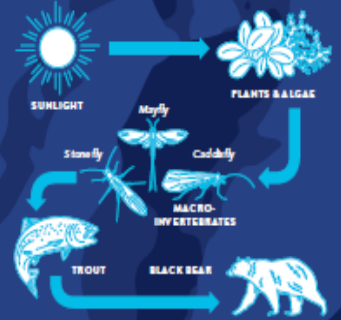
Parking lots, driveways, sidewalks, and other "impervious surfaces" speed the flow of water—and pollutants—to streams.



TREATED GRASS CLIPPINGS

When residents or business mow their lawns and sweep or spray grass clippings onto paved areas, rainfall carries fertilizer and pesticides directly to Gore Creek.

ECOSYSTEM DISRUPTION



As the populations of macroinvertebrates suffer, trout are affected, which has an impact on Vail's Gold Medal fishery and the predators that rely on these species.



THE SOLUTION



PROPER USE OF CHEMICALS

Avoid the use of pesticides or fertilizers under windy conditions or when rain is forecast. Remember: The Label is the Law.



SPOT-TREATING WEEDS

Reduce the use of chemicals by removing weeds by hand and spot-treating critical areas.



MORE NATIVE PLANTS

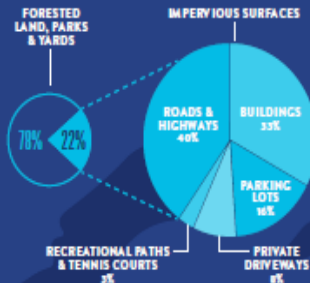
Add trees and shrubs to your yard to capture and hold rainwater before it can reach the creek.



PROPER DISPOSAL

Dispose of garden chemicals correctly by taking unused products to your local household hazardous waste site.

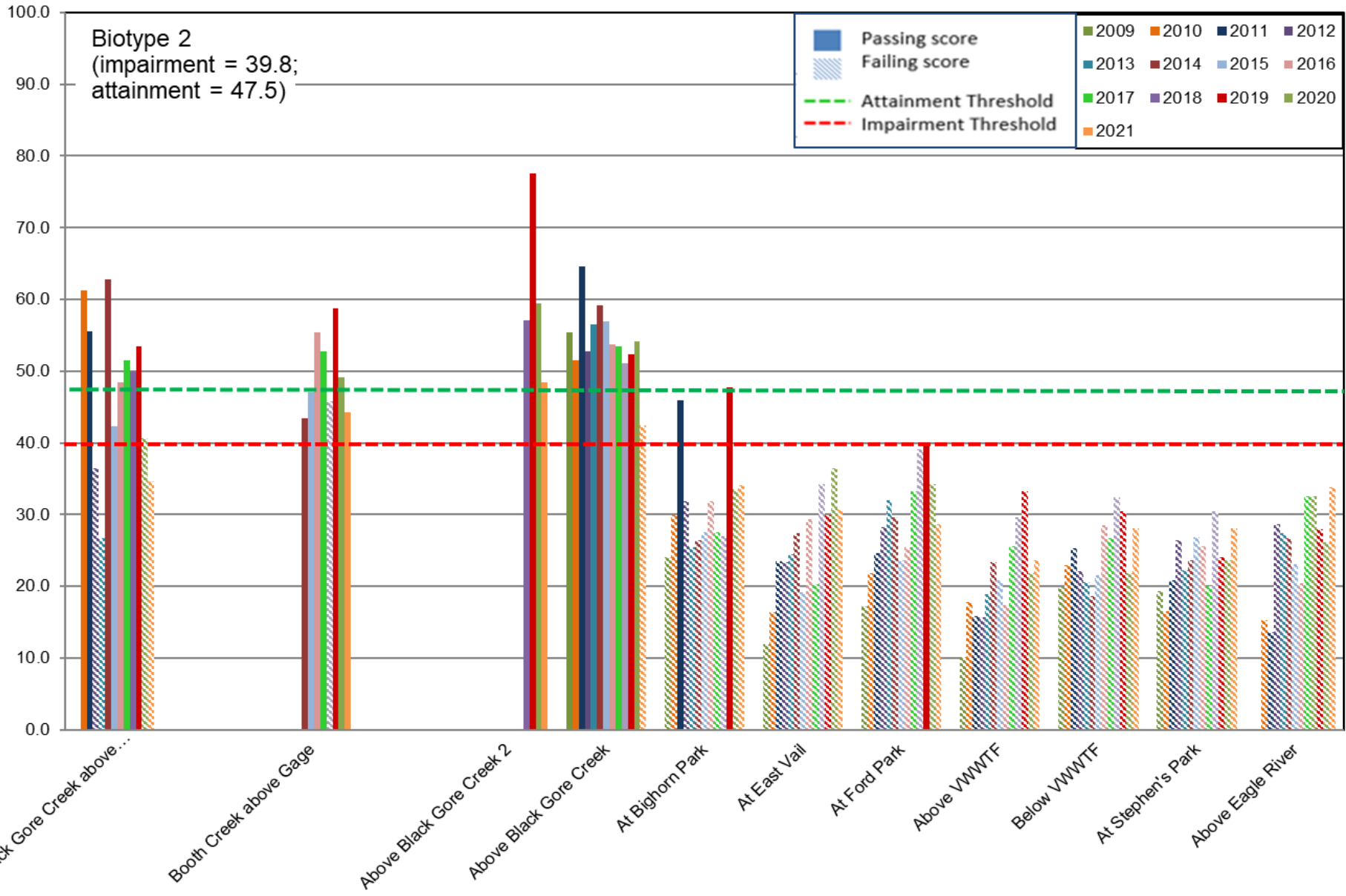
VAIL LAND USE BREAKDOWN



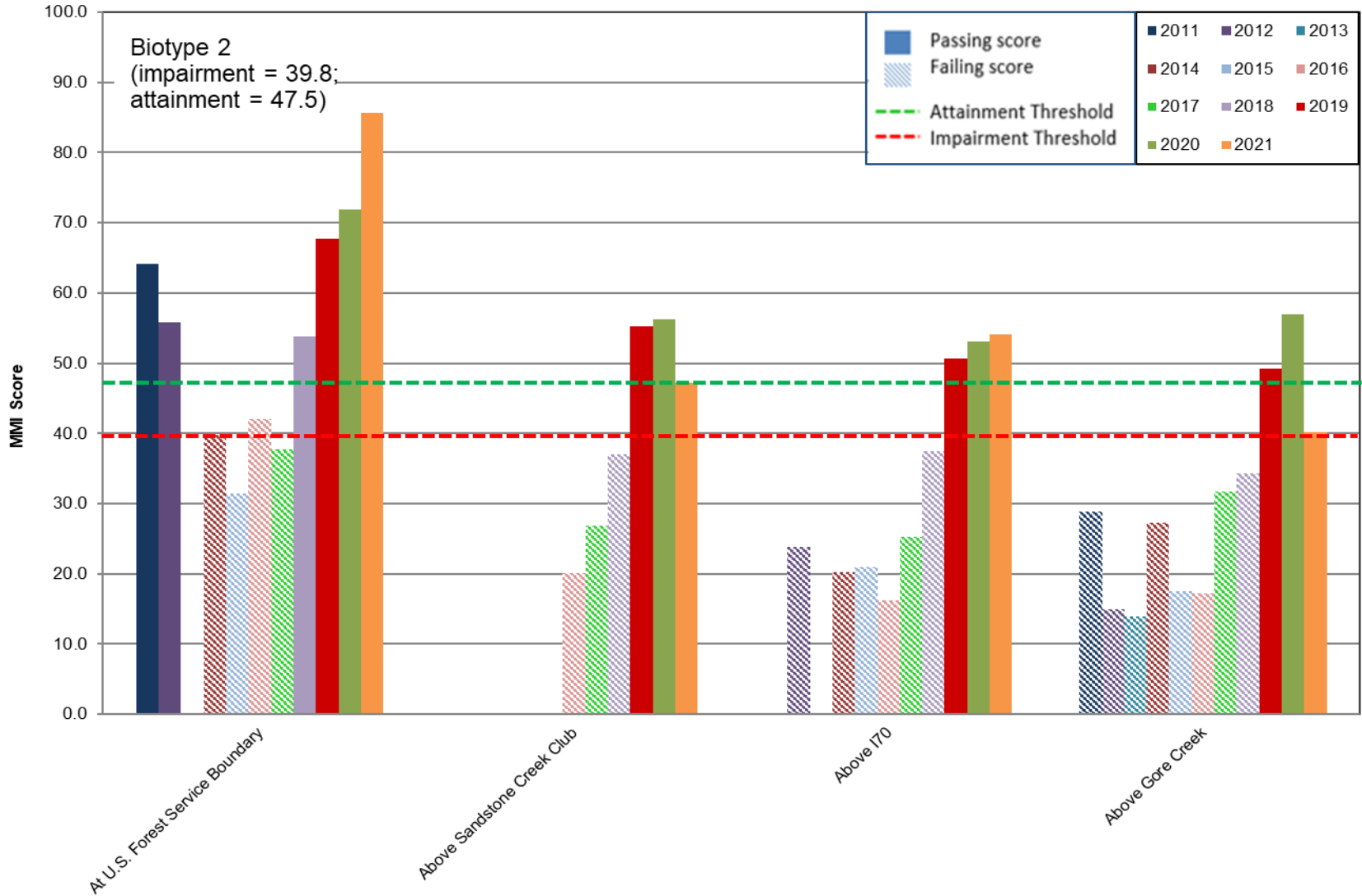
HOW IS WATER QUALITY DETERMINED?

Macroinvertebrates are used to assess water quality because they have limited movement, high reproductive rates, and varying sensitivity to pollution. Data shows that macroinvertebrate populations in Gore Creek are well below healthy levels, paralleling the density of urban development.

Gore Creek MMI through 2021



Red Sandstone Creek MMI through 2021



This looks legal



2016

This does not





The label is the Law

- Simple for applicators to understand
- But allows actions that are detrimental to cherished ecosystems
- Many foliar insecticides are directed to be “applied to saturation.”
- RoundUp is rated for use “up to waters edge.”

Recommended buffer zones



Education has not been enough to change behavior in Vail.

Patterns of foliar pesticide use in Vail



- Spraying increased from about 30% to about 50% of properties from 2007 to 2018 (self-reported by homeowners)
- Rates of pesticide application jumped when Mountain Pine Beetle was making headlines
- They have not dropped back to pre-MPB levels
- Macroinvertebrates were first observed to be disappearing from Gore Creek during the MPB epidemic
- They have not fully recovered

Landscaping Chemicals detected in Gore Creek

2017 EPA Study

- 2,4,6-Tribromophenol- Fungicide and wood preservative
- 4-Bromofluorobenzene-Used in industrial agriculture (including insecticides, herbicides, fungicides and synthetic fertilizers)
- Propiconazole - fungicide
- Nitrobenzene-d5 - rubber chemicals, pesticides, dyes

Summer 2021 Dept. of Agriculture Study

- Bicyclopyrone- Herbicide
- Carbendazim- Fungicide
- Dinotefuran- Insecticide
- 24D- Herbicide (Weed and Feed)
- MCPA- Herbicide



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