Colorado Kids

Colorado Connections

CFA Comics are developed by the Colorado Foundation for Agriculture. (www.growingyourfuture.com) in partnership with The Denver Post Educational Services. It is one of the many resources from Colorado's Ag in the Classroom program.

the Watershed Defenders in Don't Move a Mussel!

We're Flo and Jo, clean water ambassadors, and we're here to tell you about how things are changing in our watershed...it seems that a hostile presence is making itself known and it's impact on the watershed could be catastrophic.

It all started with a water flow complaint at a nearby water supply pipe. Our heroine, Kylie, discovers an intake nearly plugged by what appears to be fresh water mussels.

"I've never seen **anything** like this before.

They seem to have somehow **attached** themselves to this intake pipe.

I need to get samples back to the lab"

Meanwhile, at another location in the watershed, our hero W.D., makes a few more unnerving discoveries...

The water has a foul odor and is abnormally clear.

I can see to the bottom of this pool, but I don't see any signs of life except for these zebra-striped mussels...

...I wonder if Kylie's found anything?

Back at the Lab...

This can't be right... ...these mussels aren't native to this country...

...they're from the Ukraine!

The question is, "How did they get here?"

How indeed...meet the Contaminator, arch enemy of the Watershed Defenders...

Be patient my pets, it's almost time. My plan is about ready to hatch, and by the time the Watershed Defenders figure out what's happening...

...it will be too late!!!

What dastardly deed does the Contaminator have in store for our heroes? Read on to find out!

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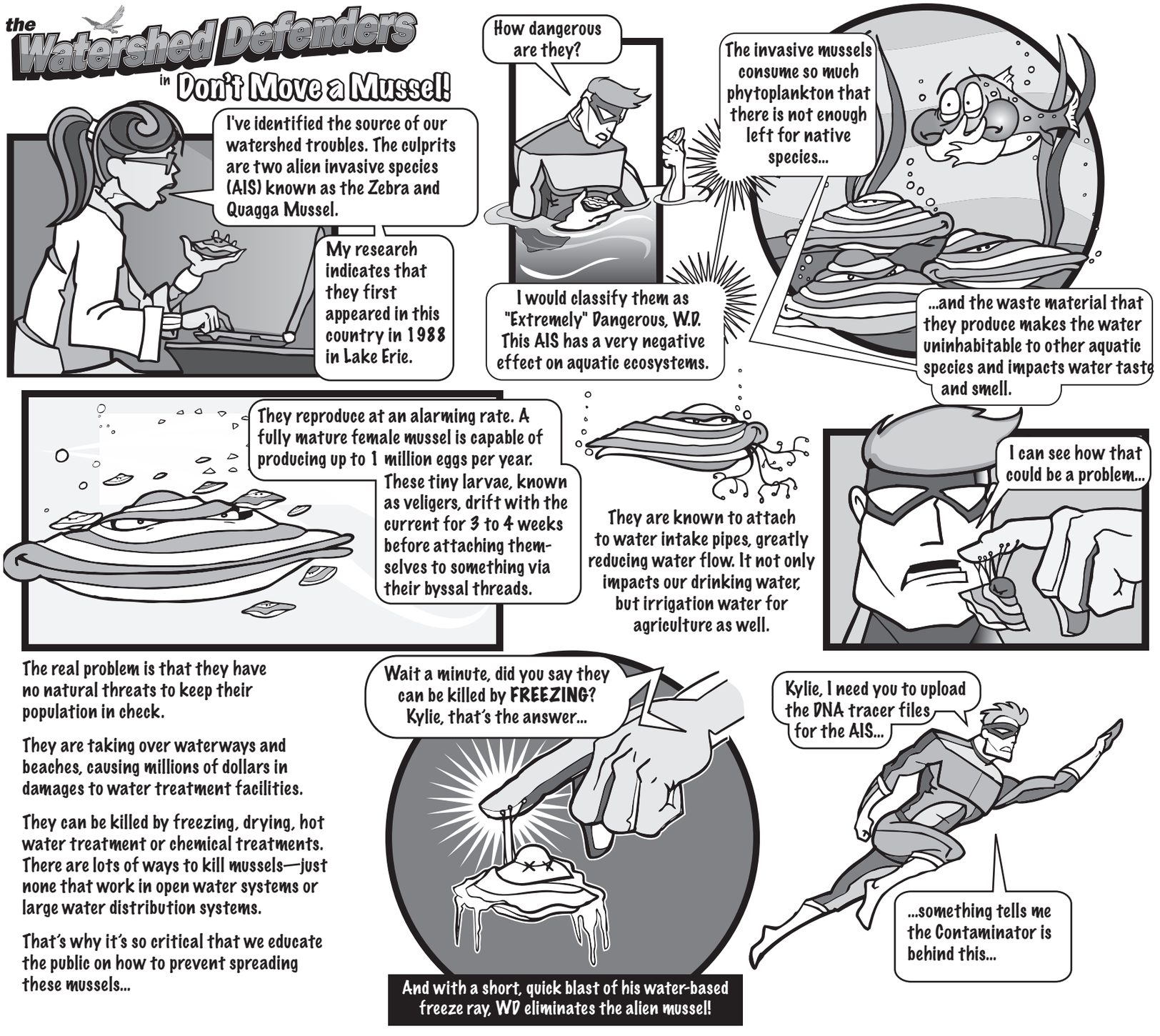


Defending the Watershed

John Wesley Powell, early explorer of the American West, described watersheds this way:

> "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."

One of the key concepts here is that every living thing is connected by water, humans included. Damage one part of the system and there can be impacts to other parts of the system (to learn more about your particular watershed, visit http://www.epa.gov/owow/watershed/whatis.html).

When we think of protecting clean water in the watershed, we often think about stopping, preventing or cleaning up pollution. But what about other threats to the system?

Zap the Zebra

What are the chances that something as small as your fingernail could cause millions of dollars in damage while hurting native plants and animals in Colorado?

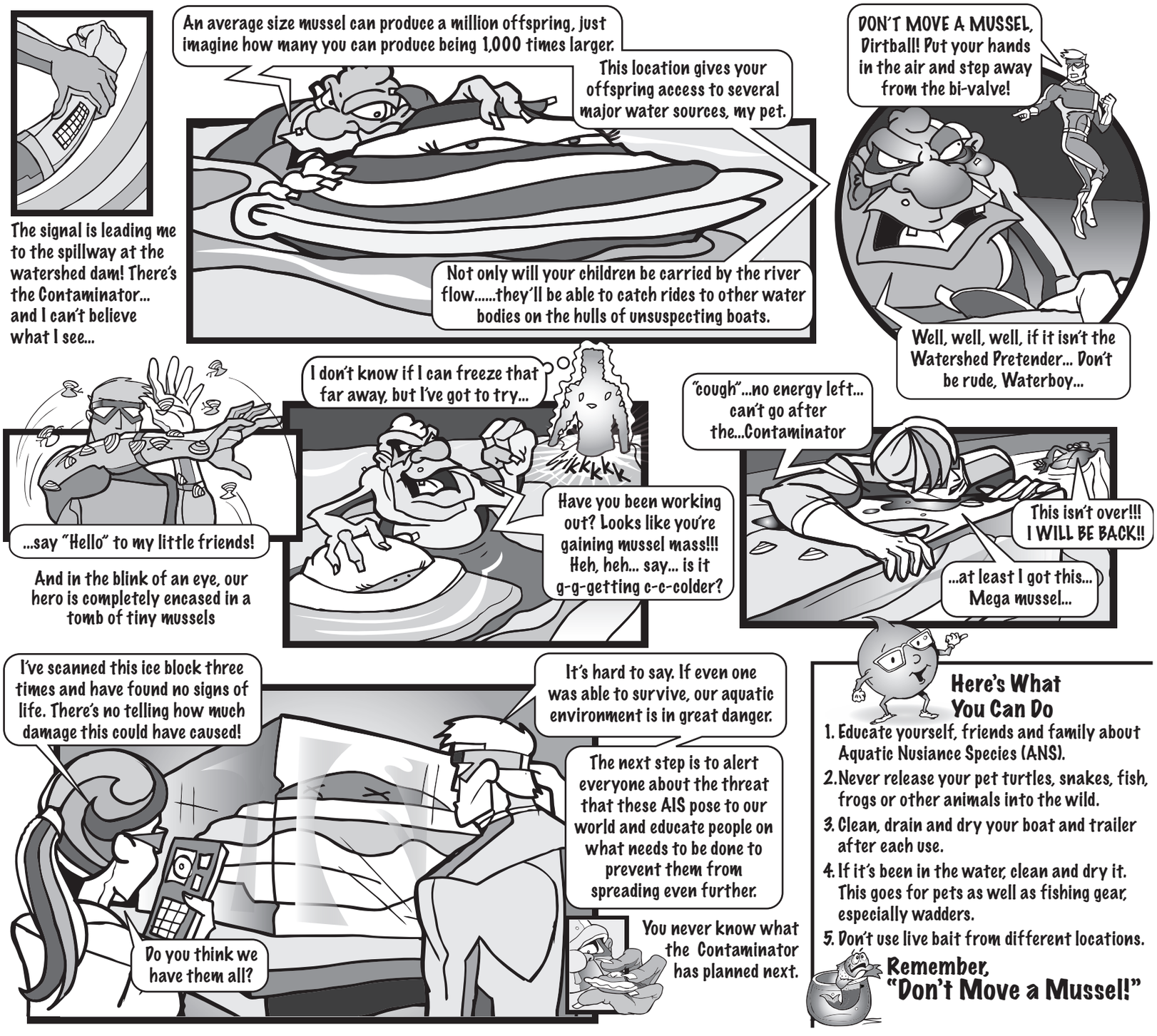
It turns out that the Zebra mussel, a small aquatic alien animal species, can cause massive problems in Colorado's lake's and reservoirs.

Alien species doesn't mean little green men in flying saucers. An alien species is a plant or animal that's not native to a region. In the case of the Zebra musssel, they are native to lakes in southeast Russia. Giant African snails (sometimes used in classroom experiments) are another example.

Once these pests are introduced to a lake with favorable conditions, they can multiply rapidly, sometimes to the point where they clog water systems and damage boats, docks and other structures. They can also damage the balance of native plants in a lake, damaging the habitat for fish.

Don't Move a Mussel

So how do these unwelcome visitors get here? The simple answer is that they hitchhike. An ocean going ship might have some in the water they carry



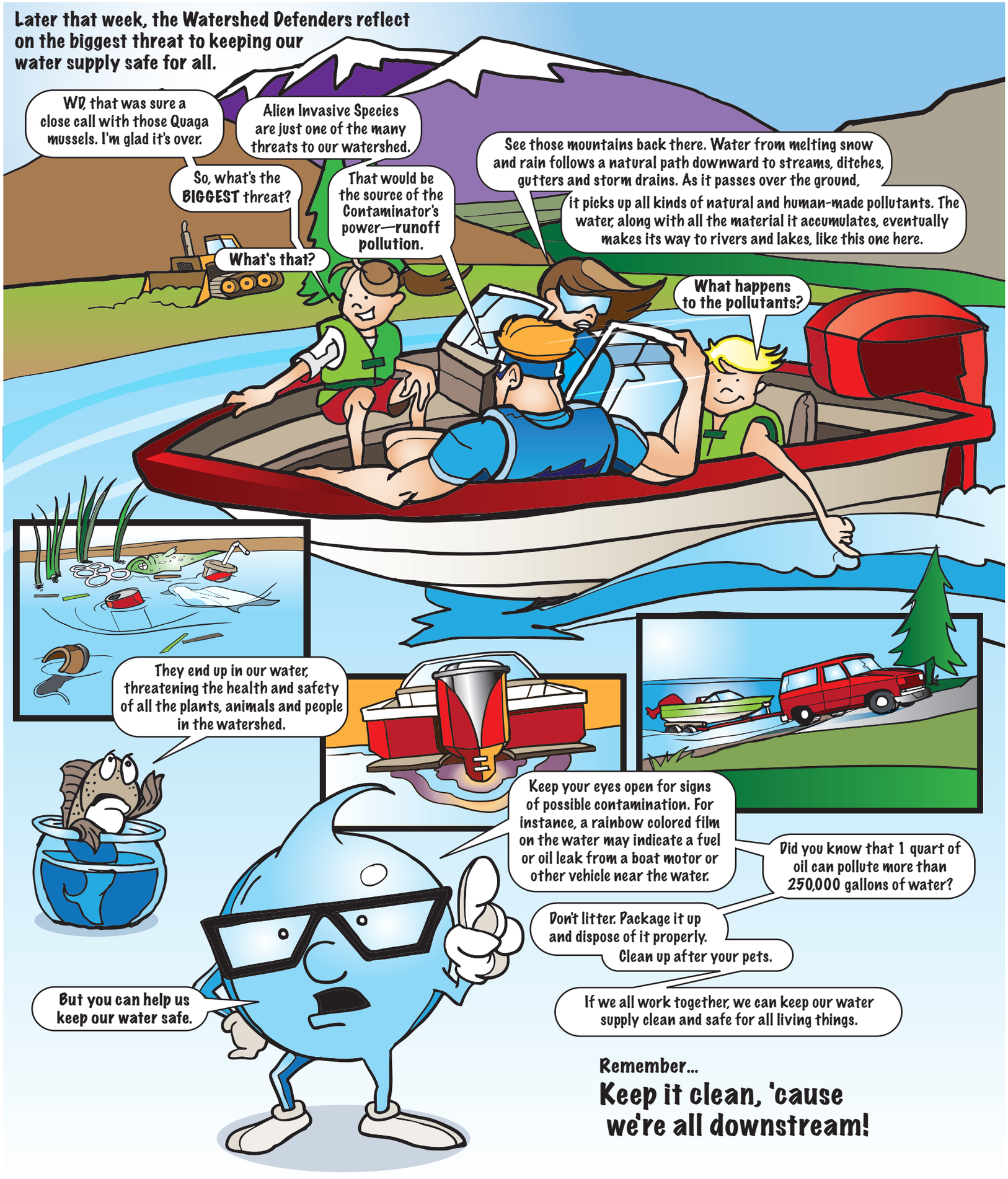
on board. The ship arrives in a place in the United States and dumps the water. The Zebra mussels begin to multiply. Then the mussels attach to the hull of another boat in the same water. The contaminated boat is then trailered to another lake, the owner not knowing he or she is spreading the invasion.

In Colorado, both Grand Lake and Pueblo Reservoir have infestations. (To see how the Zebra mussel is spreading throughout the United States, visit http://nas.er.usgs.gov/taxgroup/mollusks/zebramussel/zebramusseldistribution.as.)

Help Stop Aquatic Hitchhikers

Pueblo Reservoir and Grand Lake are popular recreation spots. They are also part of major river systems. If proper precautions aren't taken to stop their spread, water systems and habitat across the West could be impacted. But there is good news — you can help stop the spread of these pests:

- Educate yourself, friends and family about Aquatic Invasive Species.
- Never release your pet turtles, fish, frogs, rabbits (etc) into the wild, lake or stream.
- Clean/Drain/Dry your boat and trailer each time it is used.
- Clean and dry your pets after they've been swimming.
- Clean and dry any gear that's been in the water, especially fishing gear and waders.
- If you keep a fish, use a bucket instead of the boat's live well.
- Don't use live bait from another location. Throw unused live bait in trash when done. If you purchase bait, be sure to store it in a bucket, not the live well, and keep your receipt.
- If you think you have found a mussel, call or contact the Colorado Division of Wildlife Mussel Hotline at 1-303-293-6581 or the Federal ANS Hotline at 1-877-STOP-ANS (1-877-786-7267).
- More information is available at www.colorado.gov/wildlife.


Later that week, the Watershed Defenders reflect on the biggest threat to keeping our water supply safe for all.
WD, that was sure a close call with those Quaga mussels. I'm glad it's over.
Alien Invasive Species are just one of the many threats to our watershed.
So, what's the BIGGEST threat?
What's that?
That would be the source of the Contaminator's power—runoff pollution.
See those mountains back there. Water from melting snow and rain follows a natural path downward to streams, ditches, gutters and storm drains. As it passes over the ground, it picks up all kinds of natural and human-made pollutants. The water, along with all the material it accumulates, eventually makes its way to rivers and lakes, like this one here.
What happens to the pollutants?
They end up in our water, threatening the health and safety of all the plants, animals and people in the watershed.
Keep your eyes open for signs of possible contamination. For instance, a rainbow colored film on the water may indicate a fuel or oil leak from a boat motor or other vehicle near the water.
Did you know that 1 quart of oil can pollute more than 250,000 gallons of water?
Don't litter. Package it up and dispose of it properly. Clean up after your pets.
But you can help us keep our water safe.
If we all work together, we can keep our water supply clean and safe for all living things.
Remember...
Keep it clean, 'cause we're all downstream!