What are AIS?

Aquatic invasive species (AIS) are unwanted alien species whose introduction causes or is likely to cause economic or environmental harm or harm to human health. AIS are one of the largest threats to our freshwater ecosystems and include plants, animals, and pathogens. Many AIS have made their way into Nevada waters and many more are threatening to arrive. Aquatic invasive plants like Eurasian water milfoil and didymo (rock snot) can choke once thriving waterways. Invasive fish species such as snakehead, bighead and silver carp, and northern pike eliminate food and habitat resources by out-competing or consuming our native species and prized recreational fish. Quagga and zebra mussels choke intake pipes and cover critical spawning substrate. Many of the same mechanisms which transport invasive plants and animals also transmit diseases such as Viral Hemorrhagic Septicemia (VHS) and whirling disease.

How are AIS introduced?

AIS can be introduced into our waterways by various sources. Introduction of quagga and zebra mussels into a new waterway is believed to be through overland travel of contaminated watercraft and trailers. Adult mussels are able to close up and can withstand desiccation for long periods of time. When a contaminated watercraft launches at a new water, the mussels are still alive and capable of reproducing. The young stages of mussels are planktonic (floating) and invisible to the naked eye. They can survive days or weeks in ballast tanks or anything that is capable of holding water. New Zealand mudsnails are believed to be spread primarily through contaminated gear and equipment. The snail can hide, unknown to humans, in felt soled waders and any gear or equipment that has become wet. Other AIS are introduced through dumping of aquarium plants and animals or by the illegal release of AIS fish species. For example, northern pike have been introduced into several Nevada lakes illegally – the result has had disastrous impacts to native or game fish populations.

Why do AIS create so many problems?

In general, various invasive species posses many of the same detrimental characteristic:

- High population densities that reproduce quickly and in high mass
- Ability to adapt and survive in variable chemical and habitat conditions
- No major predators to control populations
- Outcompete native or desirable aquatic organisms

What negative impacts do AIS have?

Once AIS invade a water system various negative impacts can occur within that system including:

- Loss or decreases in native or desirable fish and other aquatic organisms

- Loss of habitat for native or desirable aquatic organisms
- Major increased economic impacts from increase maintenance and control expenses
- Decreased water property values when aquatic invaders become abundant
- Decreased recreation opportunities through closed waterways, health hazards, AIS clogged waterways and loss of sport fisheries.