Aquatic Nuisance Species (ANS)

Background:

Aquatic Nuisance Species (ANS) are a source of significant ecological and socio-economic problems throughout North America. Kansas's aquatic ecosystems have already been invaded by ANS such as zebra mussels, Asian carp, and Eurasian watermilfoil. There is little doubt that these and other ANS pose a serious, and growing, threat to Kansas water resources. The federal definition of ANS is a nonindigenous species that threaten the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural or recreational activities dependent on such waters. Plainly stated, ANS are non-native species that threaten the water resources of Kansas. Zebra mussels are considered a priority ANS in Kansas; they were first detected in North America in 1988 and have subsequently spread to, and negatively impacted, waterbodies across much of the Eastern and Midwestern portions of the country. They were first found in Kansas in 2003 at El Dorado Reservoir and now infest more than 30 Kansas waters. Another priority species, Asian carp, first appeared in Kansas in 1987 and now constitute the majority of the fish community in the Missouri River and its tributaries, including the Kansas River up to the Bowersock Dam, and also occupy the Neosho River.

To combat the advance of ANS, the Kansas Department of Wildlife, Parks, and Tourism (KDWPT) developed a management plan that was approved by Governor Sebelius on April 25, 2005. The plan can be found here and has the following goals:

- Prevent new introductions of ANS into Kansas
- Prevent dispersal of established populations of ANS into uninfested waters of Kansas
- Eradicate or control to minimize the adverse ecological, economic, social and public health effects of ANS in an environmentally sound manner
- Educate all aquatic users of ANS risks and how to reduce the harmful impacts
- Support research on ANS in Kansas, and develop systems to disseminate information

Current Problem:

Currently there are more than 30 water bodies in Kansas and their exiting streams that are infested with zebra mussels, see Figure 1. Miles of rivers, including the Missouri, Kansas, Wakarusa, Neosho and related tributaries, are infested by Asian Carp, see Figure 2. Multiple impoundments are also infested with invasive plants such as Eurasian watermilfoil, curly-leaf pondweed, and phragmites. These species are known to reduce or clog water intakes, reduce property values, cause declines in native species, decrease spawning habitat, and reduce useable recreational areas on lakes.

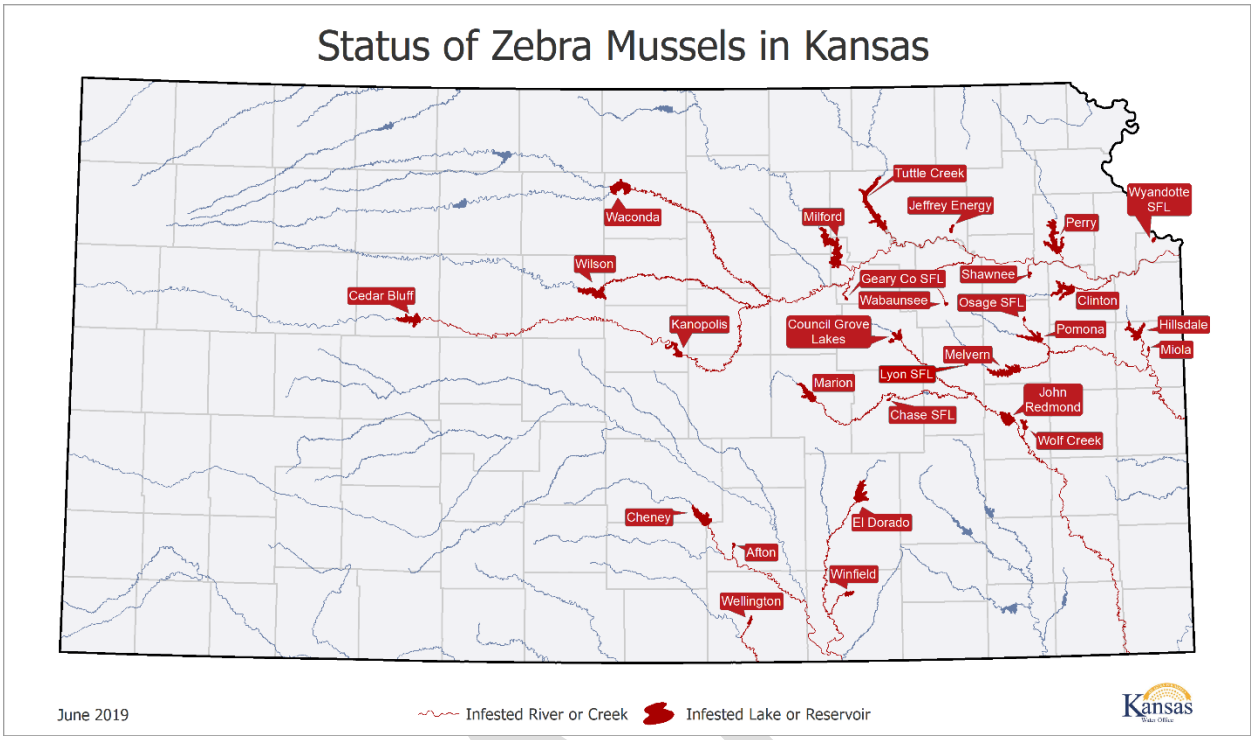

Figure 1.

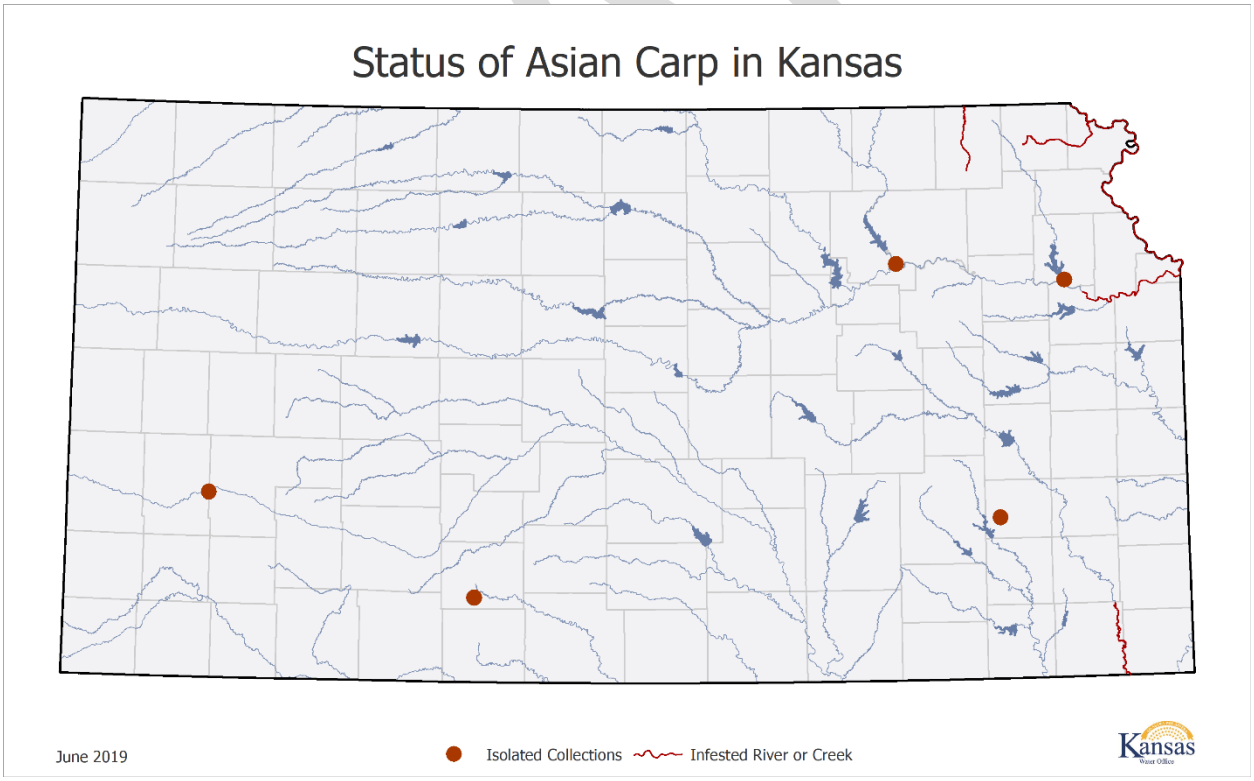

Figure 2.

Moving water, mud, animals, or vegetation between waterbodies risks spreading ANS. Examples of this include interbasin water transfers, boats/trailers, bait buckets, fires suppression equipment,

construction equipment, irrigation systems, pet releases, and raw water line repair. Other ANS of concern include: Quagga Mussel, a close relative of the zebra mussel, but which is more problematic since it does not require hard substrates to grow on; Snakehead, an apex predator fish, which is currently spreading from Arkansas throughout the Mississippi River basin and likely to be found in Kansas in the future; Black Carp, whose diet consists largely of mussels (many of which are already imperiled species), which are currently known to occur in the Missouri River in the state of Missouri and have no barrier preventing their spread into Kansas; and multiple species of crayfish that are likely to negatively impact native crayfish populations: Red Swamp Crayfish which have recently become established in Kansas and Rusty Crayfish, which while not yet known to occur in Kansas, have been detected in all of our neighboring states. Invasive species are not stopped by state boundaries so there are multiple states working in collaboration to address these species, more information is located here.

Budget needs:

The current funding for the program is managed by the Kansas Department of Wildlife, Parks and Tourism (KDWPT) and consists of revenue from hunters and anglers ($237,000 annually) and a United States Fish and Wildlife Service (USFWS) grant ($48,000 annually). These funds are used to support the ANS program activities conducted by a staff consisting of a full time ANS Coordinator and two half-time Environmental Associates. These employees are responsible for: serving as the State of Kansas' representative on an array of ANS organizations that coordinate regional and national efforts to manage invasive species; conducting research projects pertinent to KS ANS priorities; permitting and inspecting 200+ bait shops statewide; sampling 110 lakes across the state to detect new populations of zebra or quagga mussels; working with other KDWPT fisheries staff to conduct fish health testing at state and private fish hatcheries, broodfish lakes, and in response to fish kills; creating and providing education and outreach materials including a webpage, signage at waterbodies, radio ads, press releases, Facebook ads, brochures, direct mailings, event displays, presentations, and trainings; and implementing a watercraft inspection and decontamination program. KDWPT has asked for funding from the SWPF as recently as 2020 however those requests have not been selected for funding. With new RAC Goals in place addressing ANS issues, partial funding of the ANS budget seems appropriate. These funds would be used with a multiplying effect through multiple grant options.

There are insufficient state dollars to capitalize on available federal funding, possible sources include:

- Water Resources Development Act (WRDA): $15 million
- National Asian Carp Planning Fund: $25 million
- Recovering Americas Wildlife Act (RAWA): $1.3 billion
- Bureau of Reclamation (BOR) Safeguarding the West grants: 2 million
- United States Fish and Wildlife Service (USFWS) Quagga-Zebra Mussel Action Plan (QZAP) grants: 4 million

Figure 3.

Figure 4.

Regional Advisory Committee (RAC) Goals and Action Plans: (this will be updated as the new Goals and Action Plans are put in place)

Currently there are no RAC Goals or Actions Plans that address the issue of ANS. However, the current Regional Goal and Action Plan revision process could yield ANS goals in a few regions.