In 2017, China launched a program called “National Sword” to reduce importation and contamination in recyclable materials. As a result, China banned the import of many recyclable materials and lowered the contamination rate for recyclables not covered by the ban to 0.5%. China continues to ban additional materials and has imposed and increased tariffs on many recyclables. China may ban the import of all waste and recyclables by January 2020.

On January 1, 2018 China banned the import of 24 varieties of solid waste and recyclables, including mixed paper, plastics 3-7 (including most postconsumer plastics) metals, and other materials commonly collected by U.S. recycling programs. China also imposed a new 0.5% contaminant limit for the remaining recyclable materials not covered by the ban. The new limit is far below any existing international standard and all but unachievable with current equipment and system costs. September 2019 Update: China has imposed additional tariffs on cardboard, mixed paper, aluminum, and other recyclables, bringing to total import tariff for paper to 30% and aluminum to 55%.

China is the largest manufacturing nation in the world and was the single largest global consumer of recyclable materials. Recyclable materials are the sixth largest U.S. export to China. U.S. recyclers have relied on demand from the Chinese market and low shipping rates to China. Due to a large trade imbalance, it was historically very cheap to backhaul recyclable materials in shipping containers arriving from China. Other markets exist, but shipping prices are much higher, the markets are much smaller, and they have also adopted similar import restrictions.

U.S. recycling is facing a time of challenge and uncertainty. Recycling requires an end market for recyclable materials. Recycling requires replacing virgin materials in manufacturing feedstocks with recyclable materials. Prices for recycled materials have fallen significantly, while transportation and processing costs have dramatically increased. Demand is low as markets close, and there is an oversupply of materials because we continue to collect more recyclables every day. In many cases, exports and prices for recyclables are at historic lows. During the first months of 2019, recyclable plastics exports were down 67% from 2017 levels.

The Chinese market is unlikely to return and other markets are adopting similar restrictions. Many materials are flooding ports and disrupting markets in other countries. Thailand, Vietnam, Indonesia, Malaysia, and India have all implemented similar restrictions on recyclable imports. Changes to the Basel Convention, an international treaty, places further restrictions on plastic exports. The U.S. is not a party to the Basel Convention, but is subject to some requirements through participation in the Organization of Economic Cooperation and Development’s (OECD). The U.S. has protested the Basel Convention amendments at the OECD, but uncertainty will continue for U.S. recycling.

As a result, there is continuing market uncertainty even for materials not covered by the ban. China is conducting strict inspections of recyclables at U.S. facilities. Even materials that meet the new 0.5% contaminant threshold will still be rejected if any banned material is found. An entire shipment will be disallowed if a single bottle with dried juice inside is found during an inspection of materials that otherwise meet the 0.5% threshold. This includes not only the bale or container inspected, but the entire shipping allotment (10+ shipping containers), all rejected due to one prohibitive.

U.S. recycling programs currently mandate the collection of many recyclables covered by the ban and many other materials which contaminate the recycling stream. The surplus of materials from mandated recycling programs has driven prices for recyclables to historic lows and left others with no clear processing and manufacturing destination. In many cases, prices have gone negative and the cost of shipping exceeds the value of the recyclables. Prices are stabilizing, but are still much lower than before the market disruption, and system costs have significantly increased. The West Coast is suffering the strongest impacts due to historical reliance on Chinese markets for recyclables.
• Across our state, region, and nation, recyclable materials without a market demand are collected through curbside recycling programs. Washington Material Recovery Facilities (MRFs) are working to achieve the drastically lower contamination rate. Conveyor belts have been slowed, separation equipment fine-tuned, and additional labor has been added. New equipment is on the way and new markets are being developed, but both will take time. It’s not safe to store large quantities of recyclables inside for fire code reasons and not feasible to store them outside due to our wet climate. Some communities have made changes to their recycling programs to deal with the effects of the ban and recyclables have been diverted to landfills in others to prevent fire and health code issues.

• The ban presents an opportunity to review curbside recycling programs and improve their quality. Communication about the new market realities across the recycling supply chain is essential to ensure high quality recyclables that will have a market. The list of the materials accepted in local recycling plans may need to be modified both in the short and longer terms. Reducing contamination in commingled recyclables collected at the curb is essential.

• In the 2019 legislative session, the Washington State legislature passed several bills aimed at addressing the current recycling crisis. HB 1543 creates a recycling development center within the Department of Ecology to help create end markets for recyclables and requires local governments to adopt contamination reduction plans. SB 5397 requires the department to study and make recommendations for the management of plastics packaging.

• What can you do to help? Check with your local recycling program to learn which materials are collected in the commingled bin through your program. Ensure that anything you recycle is on that list. Ensuring everything that goes into the bin is recyclable is crucial for reducing contamination. Source separation of recyclables from garbage is the first step. Recyclables must also be empty, clean, and dry. If you do not know whether something can be recycled, throw it in the garbage. WHEN IN DOUBT, THROW IT OUT! Recycling programs collect too many materials that contaminate and ruin good recyclables.

Fixing Recycling in Washington:

• Recycle Right Education: we need a statewide education and messaging campaign to reduce contamination, ensure recyclables are clean, empty, and dry, and emphasize “when in doubt, throw it out.”
• Recycling programs: make recycling easier and better by simplifying and unifying recycling program material lists to those items that truly have value and can be truly recycled. Anything else is contamination.
• Increase Transparency: recycling is not free and it never was. We need to require transparency in waste/recycling/yard waste billings and create a transparent process for management and disposal of recyclables without a market.
• Reduce Contamination: we need to prioritize real quality recycling over quantity and arbitrary diversion goals. We need to emphasize source separation of recyclables, keep hazardous and non-recyclable wastes out of the recycling stream.

Materials banned under National Sword: A Comprehensive list of banned materials is available on wrra.org. Always check with your local recycling program to learn which materials can be collected through your program. Ensure that anything you recycle is on that list, and is clean, empty and dry. If you do not know whether or not something can be recycled, throw it in the garbage. WHEN IN DOUBT, THROW IT OUT!

About WRRA: The Washington Refuse and Recycling Association (WRRA) represents the private sector solid waste industry in Washington. WRRA members are the largest real recyclers in Washington. Solid Waste by the numbers:

• 14,700 people employed in Washington’s waste management and remediation industry during 2016. (Washington State Employee Security Department)

• For every million dollars generated by Washington’s solid waste industry, $2.17 million is generated in the economy through the multiplier effect. (Office of Financial Management)

• For every 10 jobs in Washington’s solid waste industry, an additional 17.01 jobs are created outside the industry. (Office of Financial Management)

For more information please contact WRRA Executive Director Brad Lovaas at (360) 943-8859 or brad@wrra.org. Most recent version and other resources always available on wrra.org