



# Sustainability Today

## Sustainability Today and in the Future



### Today

A quality source of water is essential to community residents as well as to our business. That is why [water conservation](#) is a key focus at Nicholas Meat. Water usage is continuously monitored and evaluated on a daily basis enabling us to be proactive and address trends before they become issues. Water regulating devices are installed on all fixtures to ensure only the necessary amount of water is used for each particular process. Because of our focus on [water conservation](#), we are able to maintain a level of water usage that is well below the industry standard.

There are [Food Processing Residuals](#) (FPR's) in beef harvest and fabrication. Normally considered "waste," these organic FPR's are nutrient rich, and provide a safe and beneficial alternative to chemical fertilizers. Our organic FPR's are applied to area farmland and provide many advantages over chemical fertilizers by [improving the overall soil structure](#). Improved soil structure allows for better moisture absorption, nutrient retention, and creates a healthy environment for beneficial micro-organisms. Land application of FPR's is a practice that improves crop yields and is a practice supported by the EPA, the Pennsylvania Department of Environmental Protection, soil scientists and other agriculture experts.

### Tomorrow

Are there other options for management of FPR? Yes. We can recycle these residuals and are actively pursuing a plan to do just that. To assist us in planning for our goal of maximum sustainability, we sought the advice of the best experts around the world. We challenged these experts to look at all aspects of our business and find ways to reduce waste, recycle waste streams, and identify sustainable methods of handling our waste.

This research culminated in plans for our [Sustainable Resources Facility \(SRF\)](#). This is the most ambitious project we have undertaken, and we truly believe it will set the standard for sustainability throughout the meat processing industry. The SRF will be strategically located adjacent to the meat processing facility, allowing 97% of the system inputs and recovered materials to be piped to and from the SRF. Therefore, there will be fewer trucks on the road, resulting in less traffic, less fuel consumed, fewer carbon emissions and an overall improvement to the environment.

The SRF will employ a process called [anaerobic digestion](#) where bacteria convert organic waste into an energy source called biogas. This biogas will be used to power various devices throughout our operations and will replace our dependence on fossil fuels. Because anaerobic digestion occurs in an enclosed environment, odorous emissions are contained, and greenhouse gases are substantially reduced.

Solid waste is broken down by the [anaerobic digestion](#) process and becomes a stable, nutrient rich, odor-free fertilizer that can be applied to area farmland. The overall volume is reduced, resulting in less truck traffic to and from the fields. This means less fuel is used for transportation, further reducing our carbon footprint.

Process [water](#) piped to the SRF will undergo advanced wastewater treatment with reverse osmosis that will allow us to reuse up to 90% of the water within our operations. Consequently, less [water](#) will need to be withdrawn from the underground aquifer, protecting this valuable resource.

We strongly believe the proposed [Sustainable Resource Facility](#) is ethically and environmentally the most meaningful improvement we can make for all those who work at Nicholas Meat and for the community. We are excited about this project and look forward to its completion.

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