



The Ashland Food Co-op has a twenty year sustainability plan, which began in 2008 and was developed using the principles of “The Natural Step” (TNS). The TNS framework is a comprehensive model for planning in complex systems, and is openly published and free for all to use. This framework has helped hundreds of different organizations around the world integrate sustainable development into their strategic planning and create long lasting transformative change. It is constantly being used, tested, refined and developed. The following description of TNS was adapted from www.thenaturalstep.org.

About The Natural Step:

The Natural Step Framework is based on systems thinking; recognizing that what happens in one part of a system affects every other part. Think of a soccer team. We can't understand why the team lost the game until we look at how each player – the goal keeper, defenders and forwards - all worked together on the field. We won't learn much if we just study one member of the team. The TNS Framework gives an organization the tools to look at the whole team, understand the rules of the game, define success, and move towards it together.

Any successful team must have a common language and understanding in order to facilitate cooperation. The TNS Framework provides this shared mental model of sustainability by helping people across organizations, disciplines and cultures to communicate effectively, build consensus, and ultimately move toward their vision. We use an upstream approach that anticipates and avoids problems before they occur, rather than reacting to their downstream effects.

This scientifically rigorous Framework gives organizations the tools to perform a gap analysis using the lens of sustainability, and then work toward closing the gap. Furthermore, The Natural Step Framework complements other sustainability tools and methodologies, such as life cycle analysis or environmental management systems, by providing the context and strategic vision that makes them more effective.

The Natural Step Framework has been used in strategic decision-making by hundreds of organizations, in multiple sectors, across supply chains and in various scales, offering concrete and simple ways to accelerate change toward sustainability.

The Four System Conditions of the Natural Step

Left to its own devices, the earth is a sustainable system. As we continue to learn, however, the accumulated impacts of human activity over the past two centuries are now threatening our continued well-being. An international network of scientists have unanimously and publically concluded that human society is damaging nature and altering life-supporting natural structures

and functions in three fundamental ways. Consequently, they were able to define three basic conditions that must be met if we want to maintain the essential natural resources, structures and functions that sustain human society. Further, acknowledging that human action is the primary cause of the rapid change we see in nature today, they included a fourth system condition that focuses on the social and economic considerations that drive those actions and the capacity of human beings to meet their basic needs.

While written to be clear scientifically, the specific wording of the four system conditions can be confusing to non-scientists who try to put them to work. Fortunately, the system conditions can be reworded as basic sustainability principles that provide explicit guidance for any individual or any organization interested in moving towards sustainability. The table below contains the four system conditions on the left and the reworded the basic sustainability principles on the right. In most instances, we refer to the basic sustainability principles.



The Four System Conditions...	... Reworded as The Four Principles of Sustainability
In a sustainable society, nature is not subject to systematically increasing:	To become a sustainable society we must...
1. concentrations of substances extracted from the earth's crust	1. eliminate our contribution to the progressive buildup of substances extracted from the Earth's crust (for example, heavy metals and fossil fuels)
2. concentrations of substances produced by society	2. eliminate our contribution to the progressive buildup of chemicals and compounds produced by society (for example, dioxins, PCBs, and DDT)
3. degradation by physical means	3. eliminate our contribution to the progressive physical degradation and destruction of nature and natural processes (for example, over harvesting forests and paving over critical wildlife habitat); and
4. and, in that society, people are not subject to conditions that systemically undermine their capacity to meet their needs.	4. eliminate our contribution to conditions that undermine people's capacity to meet their basic human needs (for example, unsafe working conditions and not enough pay to live on).

At first reading, the system conditions and basic principles might seem to imply that we must rid society of all materials extracted from the earth and all substances produced by society and that,

further, we must never disturb a natural landscape. But that's not what they mean. The problem is not that we mine and use heavy metals, or use chemicals and compounds produced by society, or disrupt natural processes, or even temporarily interfere with people's capacity to meet their basic needs. It is, rather, that our industrial system has developed so that substances extracted from the earth and produced by society will continue to build up indefinitely in natural systems. That means a progressive buildup of pollutants and substances that not only harm us directly but damage natural processes that have taken billions of years to develop.

