



SUSTAINABLE DEVELOPMENT GOALS

THE DEVENS ENTERPRISE COMMISSION SUPPORTS THE UNITED NATION'S SUSTAINABLE DEVELOPMENT GOALS

DEVENS 20/20: Advancing the United Nation's Sustainable Development Goals




What are the UNSDG's?




The world's population is growing exponentially – at the same time, the natural environment is changing at an unprecedented pace: sea levels are rising; ocean acidification is accelerating; the earth's temperature continues to increase; one million plant and animal species are at risk of extinction; and the natural environment continues to be exploited by our growing population. In short, we are managing the planet's resources in an unsustainable manner and our actions globally are exceeding the carrying capacity of the earth's ecosystems. Hunger, inequality, poverty, violent conflicts, vulnerabilities to natural disasters, lack of access to clean water and basic healthcare are on the rise as the effects of human-induced climate change continue to impact more and more vulnerable populations. But all is not lost! More people around the world are living better lives compared to just a decade ago. More people have access to better healthcare, decent work, and education than ever before. Understanding our natural systems and how our actions impact them can help us in reprioritizing and Investing in more sustainable approaches to conservation and development that can create significant opportunities for shared prosperity. The United Nations Sustainable Development Goals (SDG's) are comprised of 17 overarching goals that aim to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. According to the United Nations, the SDG's are "...the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice. The 17 Goals are all interconnected..." (<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>).




Devens Redevelopment and the SDG's:



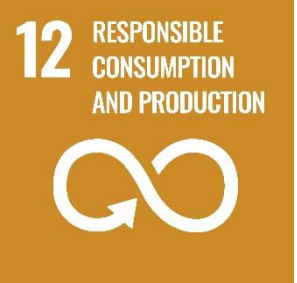
Devens commitment to Sustainable Development was derived from the 1994 Reuse Plan. The first goal of the Reuse Plan states: "Development must be sustainable, which means achieving a balance of economic, social, and environmental needs, while maintaining and enhancing the natural resource base." Since 1996, when Devens was transferred from the Department of Defense to the Commonwealth of Massachusetts, the Devens Enterprise Commission and MassDevelopment have worked to advance this goal. But how is Devens doing? Over the past decade, The Devens Enterprise Commission has undertaken a series of internal and external audits to help evaluate how the Devens redevelopment process is meeting this sustainability goal. From Case Studies and regular Sustainable Indicators Reports, to a 4-Star STAR Community rating and LEED for Cities and Communities designation, Devens has been monitoring and measuring development and conservation efforts to not only celebrate its achievements, but to strive for continuous improvement as these efforts progress. The SDG framework presents another opportunity to evaluate our redevelopment efforts and identify how Devens is contributing to the advancement of these global goals, and where we need to improve our efforts. This evaluation also allows us to look at how we can use our experiences in Devens as a model to further advance each of the SDG's globally.





The following matrix identifies each of the 17 SDG's and focuses on Devens' contribution and how redevelopment to-date has or has not helped advance each of these goals. The sections highlighted in **GREEN** are SDG's that Devens is fulfilling well. The sections highlighted in **YELLOW** are SDG's where Devens is contributing but more effort is needed. Devens contributions take into consideration the 232 indicators that the SDG's are based on.

SDG GOAL	SUMMARY	DEVENS CONTRIBUTION <small>Green: good; Yellow: needs improvement; Red: little/no contribution to date</small>	ADDITIONAL RECOMMENDED ACTIONS TO FURTHER ADVANCE SDGs
 <p>1 NO POVERTY</p>	<p>End poverty in all its forms everywhere.</p>	<p>The poverty rate in Devens has dropped from 39% in 2012 to 13.68% in 2015 (still higher than national average of 13.4%). This drop is likely due to the expanding support programs and services in Devens that are helping to reduce poverty in the region and the state as a whole:</p> <ul style="list-style-type: none"> • Transitions women's shelter; • Providing affordable housing (25%); • Veterans Housing and support Services; • Education & job training programs like Shriver Job Corps and Mount Wachusett Community College. 	<ol style="list-style-type: none"> 1. Increased support for vulnerable groups and poverty eradication; 2. Provide improved access to local and regional services like Devens shuttle; 3. Reduce vulnerable population's exposure to climate-related extreme events and other economic and environmental shocks and disasters; 4. Work with prison to improve programs and services to reduce poverty rates among prisoners.
 <p>2 ZERO HUNGER</p>	<p>End hunger, achieve food security and improved nutrition and promote sustainable agriculture.</p>	<p>In 2016, 48% of the Devens residential population had access to healthy food options within a ¼ mile. In 2019, the Devens Farmers market opened, providing additional access to more than 50% of Devens residents. Numerous other programs and services in Devens further contribute to this goal:</p> <ul style="list-style-type: none"> • Loaves and Fishes Food Pantry (reducing hunger for vulnerable populations); • Devens Farmers Market (increased access to healthy foods) • Natural Café (additional health food options); • Little Leaf Farms – supporting sustainable agriculture; • State Local Food Action Plan & Zoning to support local agriculture. 	<ol style="list-style-type: none"> 1. Expand farmers market offerings (increased frequency and participation of additional local farms); 2. Look for winter opportunities for local healthy food access; 3. Promote community gardens and local agriculture; 4. Support additional opportunities for more sustainable local commercial agriculture for the region;
 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>Ensure healthy lives and promote well-being for all at all ages.</p>	<p>98.8% of the population of Devens, MA has health coverage. In addition:</p> <ul style="list-style-type: none"> • The DEC partners with the Nashoba Associated Boards of Health to provide health and wellness clinics for Devens residents and businesses; • Devens Healthy Communities Proclamation; • Tara Vista Behavioral Health Center provides regional services for substance abuse and co-occurring mental health disorders; • Dragonfly Wellness Center offers holistic therapies and wellness classes/clinics; • Devens Complete Streets Policy makes streets safer and helps reduce traffic accidents, and provide more healthy transportation options; • Water Resource Protection and Hazardous Material Regulations continue to protect air, water, and soils from contamination; • Improved indoor and outdoor air quality due to green building requirements, TDM, Street Tree replacement, open space protection; • Supporting biotech industry which works on communicable and non-communicable disease treatment. 	<ol style="list-style-type: none"> 1. Support increased access to sexually reproductive health care services and family planning; 2. Support improved air quality through continued enforcement of GHG Mitigation Regulations; 3. Set GHG emission reduction targets as part of Climate action planning process. 4. Include early warning and risk reduction for global health risks in emergency management plans. Global health risks include, but are not limited to, HIV, malaria, respiratory and cardiovascular illnesses, cancer, diabetes.

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 <p>4 QUALITY EDUCATION</p>	<p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p>	<p>All children in Devens have access to free schooling (Hildreth Elementary School and Bromfield School in Harvard), including kindergarten. Additional education resources in Devens include:</p> <ul style="list-style-type: none"> • Shriver Job Corps offers GEDs and technical and career training alternatives. • Parker Charter school (special attention to at-risk students) • Co-located workforce training programs at Mount Wachusett Community College; • Women’s Institute – Life Skills training; • Clear Path for Veterans; • Seven Hills Adult Daycare and Guild of St. Agnes Child Daycare; • Applewild preschool and kindergarten; 	<ol style="list-style-type: none"> 1. Support/assist in the development of sustainable education curriculums; 2. Upgrade education facilities to be disability and gender sensitive and improve safety; 3. Support equal access (eliminate gender, racial, indigenous people disparities).
 <p>5 GENDER EQUALITY</p>	<p>Achieve gender equality and empower all women and girls.</p>	<p>Devens is home to a number of social services that support and empower women and children, including:</p> <ul style="list-style-type: none"> • Transitions Women’s Shelter – 13-unit LEED Gold home for homeless women with Children. Provides shelter, support and training services for women, empowering them to rise out of domestic violence and poverty. • Equal opportunity employers; • Support services such as child and adult daycare facilities for working women with children. 	<ol style="list-style-type: none"> 1. Supporting state and local laws that aid in reducing all forms of violence against women and children; 2. Support state and local laws that promote gender and racial equality. 3. Monitor gender and racial equality.
 <p>6 CLEAN WATER AND SANITATION</p>	<p>Ensure availability and sustainable management of water and sanitation for all.</p>	<p>The quantity and quality of water in Devens continues to meet all applicable drinking water standards and all Devens residents and businesses have plentiful access to clean water and sanitation. Other contributions to this SDG:</p> <ul style="list-style-type: none"> • Devens water and wastewater facilities support surrounding communities as well (Ayer tie in to Water for emergency back-up, regional wastewater treatment at Devens WWTP); • PFAS contamination in drinking water being addressed through additional water treatment and working with the Army to ID sources; • DEC Regulations facilitate water reuse, water efficiency, waste minimization, reuse and recycling; • Regional Household Hazardous Waste and C&D disposal facilities on Devens (for residents and small businesses in Devens and 13 surrounding towns); • Protected water resource ecosystems (ground and surface water). 	<ol style="list-style-type: none"> 1. Continue to support and implement new and innovative approaches to water resource protection, management and conservation. 2. Increase water efficiency requirements for all developments 3. Protect remaining parcels ID’d in Open Space and Recreation Plan and ensure sustainable forest management in accordance with the Devens Forward Climate Action Plan to protect natural resources.

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<p>7 AFFORDABLE AND CLEAN ENERGY</p> 	<p>Ensure access to affordable, reliable, sustainable and modern energy for all.</p>	<p>Devens is a local and state leader in energy efficiency and clean renewable energy. Examples of this include:</p> <ul style="list-style-type: none"> • Net-Zero Energy (NZE) homes and condos – State pilot project to demonstrate how NZE homes can be built at no extra cost. Energy Positive homes (generating more than they consume) combining efficiency and renewables; • Stretch Energy Code required for certain projects • Low utility rates contribute to affordability (but counterproductive for efficiency); • Over 10% of Devens energy is generated by solar (rooftop and ground-mounted systems). 	<ol style="list-style-type: none"> 1. Support State Adoption of a Net Zero-Energy Stretch Building Code; 2. Adopt the Stretch Energy Code for all projects in Devens; 3. Increase efficiency without increasing costs; 4. Increase amount of renewable energy generation; 5. Invest in infrastructure transmission efficiency (reduce transmission loss).
<p>8 DECENT WORK AND ECONOMIC GROWTH</p> 	<p>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.</p>	<p>Devens redevelopment has attracted over 100 businesses and more than 5,000 employees to the region and continues to be an economic, environmental and social success:</p> <ul style="list-style-type: none"> • Job creation, creativity and innovation; • Small and medium size businesses as well as large employers. • Educational support services (workforce training partnerships - all ages); • Promoting sustainable tourism in partnership with US Fish and Wildlife Service, Nashua River Watershed Association, Devens Recreation); • Devens is an Economic Target Area and an Economic opportunity Area. • Devens employees earn more than state median income (on average); • DEEC supports efficiency resource use for businesses. 	<ol style="list-style-type: none"> 1. Attract and retain more sustainable businesses; 2. Sustain economic growth for the region and state; 3. Support more sustainable consumptive patterns in business through improved energy, water and resource efficiency; 4. Support equal pay for equal work policies; 5. Explore Foreign Federal Trade Zone authority at Devens (Ch. 498 S.17).
<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> 	<p>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</p>	<ul style="list-style-type: none"> • Regional Infrastructure (water, sewer, rail, shuttle); • Shuttle service providing low-cost alt transportation options (equity); • Low-impact development stormwater management (resiliency); • Complete Streets Policy (universal accessibility); • Innovation and Technology Business District Zoning that specifically targets innovative technologies; • Supporting scientific research and technology business growth that contributes to global health; • Zoning that supports value added industries; • Devens Eco-Efficiency Center – unique value-added service for Devens to foster sustainable industry, innovation, and infrastructure. 	<ol style="list-style-type: none"> 1. Support development of more resilient infrastructure (underground electric); 2. Improve shuttle service (frequency); 3. Work with Council's on Aging in Surrounding communities to provide support/accessibility to Devens aging population; 4. Attract more sustainable businesses; 5. Grow Devens Eco-Efficiency Center programs and promote as a model.

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 <p>10 REDUCED INEQUALITIES</p>	<p>Reduce inequality within and among countries.</p>	<ul style="list-style-type: none"> • The DEC is an equal-opportunity employer and does not consider race, creed, color, age, sex, sexual orientation, national origin or qualified handicap status. • Non-discrimination and sexual harassment policies are in-line with state and federal requirements; • State minimum wage law helps promote higher income levels across the board, regardless of race, creed, color, age, sex, sexual orientation, national origin or qualified handicap status. • Devens employees earn more than state median income (on average); 	<ol style="list-style-type: none"> 1. Continue to enforce and educate on policies that create equal opportunities for all and reduce discrimination. 2. Update policies as needed; 3. Enhance opportunities to engage vulnerable populations in public participation and decision-making; 4. Expand diversity of local boards and commissions.
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p>Make cities and human settlements inclusive, safe, resilient and sustainable.</p>	<ul style="list-style-type: none"> • Affordable housing access (low income, moderate income, age restricted, veterans housing, Transitions and other special needs populations); • Energy and water efficient development; • Redevelopment of previously developed areas/infrastructure; • Protection of over 1,400 acres of accessible open space (Green Infrastructure connectivity); • Superfund site – brownfield clean up and responsible redevelopment; • Cultural heritage Historic District and United Native American Cultural Center; • Inclusive planning processes; • Hazard Mitigation and Climate Vulnerability Assessments/Plans; • Regional connectivity (infrastructure, jobs, services). 	<ol style="list-style-type: none"> 1. Improve shuttle bus access (additional service and stops) for residential and businesses. 2. Develop more local services to reduce commuting distances and promote walkability/universal accessibility; 3. Reduce municipal waste; 4. Improve air quality; 5. Use more locally sourced materials and expand more regional services; 6. More sustainable management and efficient use of natural resources;
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>Ensure sustainable consumption and production patterns.</p>	<ul style="list-style-type: none"> • The Devens Eco-Efficiency Center’s Great Exchange program diverts waste and promotes reuse; • Devens Recycling – regional waste/reuse diversion; • Regional Household Hazardous Waste Recycling facility for residents and small businesses; • Living Sustainably Resources for Devens Residents on website; • Recycling (glass, metal, aluminum, paper, cardboard, electronics, tires); • Commercial composting programs in place; • Partnerships with UMass Toxic Use Reduction institute; • Devens Sustainable Indicators Report (consumption monitoring). 	<ol style="list-style-type: none"> 1. Grow Devens Eco-Efficiency Center’s programs to support businesses in the Devens region; 2. Implement more composting/food waste reduction; 3. More environmentally sound management of chemicals & reduce hazardous materials; 4. Identify how many firms in Devens already conduct sustainability reporting (Devens Forward Survey?) and explore options to require all companies as part of annual reporting; 5. Sustainable tourism strategies and monitoring; 6. Support elimination of fossil fuel subsidies and creation of more renewable energy subsidies.

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<p>13 CLIMATE ACTION</p> 	<p>Take urgent action to combat climate change and its impacts.</p>	<ul style="list-style-type: none"> • Hazard Mitigation and Climate Vulnerability Assessments/Plans; • Community and Municipal GHG Emissions inventory; • Currently undertaking Climate Action Planning process to reduce GHG emissions and mitigate and adapt to changing climate (will also contribute towards reduced ocean acidification); • Climate Mitigation and adaptation strategies in existing regulations (awareness and enforcement); • Low-Impact Development (nutrient removal to protect waterways, resiliency, aquatic biodiversity); 	<ol style="list-style-type: none"> 1. Finalize Climate Action Plan and implement GHG reduction strategies (update regulations where applicable to meet plan goals); 2. Improve Air Quality; 3. Support developing countries in education and awareness of climate mitigation and adaptation and more sustainable approaches to development; 4. Support the Green Climate Fund.
<p>14 LIFE BELOW WATER</p> 	<p>Conserve and sustainably use the oceans, seas and marine resources for sustainable development.</p>	<ul style="list-style-type: none"> • Low-Impact Development (nutrient removal to protect waterways, resiliency, aquatic biodiversity); • Currently undertaking Climate Action Planning process to reduce GHG emissions and mitigate and adapt to changing climate (will also contribute towards reduced ocean acidification); • Climate Mitigation and adaptation strategies in existing regulations (awareness and enforcement); 	<ol style="list-style-type: none"> 1. Preserve and support aquatic and terrestrial biodiversity;
<p>15 LIFE ON LAND</p> 	<p>Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>	<ul style="list-style-type: none"> • Superfund site – brownfield clean up of degraded land and responsible redevelopment and protection of over 1,400 acres of land; • Clear-cutting prohibitions, tree preservation laws; • Floodplain protection; • Threatened and Endangered Species Protection; • Landscaping regulations that support increased biodiversity and invasive species management; • Sustainable Forestry management through the Devens Forward process. 	<ol style="list-style-type: none"> 1. Implement Sustainable forest management processes at Devens; 2. Better invasive species management; 3. Integrate Natural capital values into planning process (economic value of nature and biodiversity); 4. Include biodiversity and ecosystem service protection in updates to Open Space Planning;
<p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p> 	<p>Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.</p>	<ul style="list-style-type: none"> • Low violence rates in Devens; • Absence of organized crime, prostitution; • Government accountability (Conflict of interest and ethics training for staff and commissioners) • Partnership with the State Police • Devens Enterprise Commission open public hearings and meetings; • MassDevelopment Board of Directors Annual meetings at Devens; • Strong level of communication between residents, businesses, DEC and MassDevelopment (responsive, participatory, and representative); • Freedom of Information Act compliant. 	<ol style="list-style-type: none"> 1. Track public service requests and public satisfaction of public services; 2. Strengthen community and regional participation in governance issues.

17 PARTNERSHIPS FOR THE GOALS



Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

- Leading by example: Sharing strategies, resources and case studies on sustainable redevelopment practices in Devens as a model (including case study with the US Economic Development Administration);
 - Partnerships with Canada, China, Japan, Korea, Germany, Trinidad and Tobago – information exchanges to learn from each other and advance all of the SDG’s globally;
 - Educational partnerships between Devens and many higher learning institutions to enhance and promote sustainable development:
 - Yale School of Forestry and Env. Studies
 - Harvard Graduate School of Design and School of Public Health
 - MIT Department of urban Studies and Planning
 - Tufts Department of Urban and Environmental Policy and Planning
 - University of Massachusetts
 - Clark University
 - Worcester Polytechnic Institute
 - Dalhousie University School for Resource and Env. Studies (Canada)
- Partnerships with regional organizations such as:
- Nashua River Watershed Association
 - MassAudobon
 - Montachusett Regional Planning Commission
- Public, non-profit and private partnerships in Devens as examples:
 - Devens Eco-Efficiency Center
 - Loaves and Fishes
 - Transitions Women’s Shelter
 - Clear Path for Veterans
 - UMass Donahue Institute & TURI
 - BMS & MWCC

1. Develop more case studies on how Devens is meeting specific SDG’s
2. Continue to share and exchange knowledge and resources within our region, as well as nationally and with developing countries to further mutual goals and the SDG’s;
3. Partner with developing countries and those without the knowledge and capabilities of sustainable approaches to development and conservation.
4. Explore Foreign Federal Trade Zone authority at Devens (Ch. 498 S.17).

Written by Neil Angus, AICP CEP, LEED AP, Environmental Planner for the Devens Enterprise Commission. The Devens Enterprise Commission is the permitting and regulatory authority overseeing the redevelopment of the former Fort Devens, located approximately 35 miles outside of Boston, Massachusetts. More information of Devens is available at www.devensec.com . Neil can be reached at neilangus@devensec.com