ELEMENT 5 CHECKLIST

ENVIRONMENTAL PROTECTION AND ECOSYSTEM ADAPTATIONS

○ Yes = Action completed   ○ Somewhat = Action in progress or incomplete   ○ No = No action planned or taken   ○ Unknown = Status or action unknown   ○ N/A = Does not apply

GENERAL	Value	Rank
5.0.1 A climate resilient health care facility recognizes and commits to sustainable practices that benefit the hospital and broader community. Does your health care facility undertake any of the following measures to be more sustainable?		
• Develop sustainability goals and action plans		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Track sustainability performance *(setting targets, identifying indicators)*		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Implement strategies and activities to continuously improve sustainable management		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Build community partnerships with organizations or agencies to contribute to a resilient community		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Learn about new and emergent programs and technologies to be more sustainable *(assessing sustainable practices of suppliers, for example)*		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
5.0.2 Many states and municipalities have begun to address climate change by developing climate action plans, undertaking vulnerability assessments, and restoring or adapting ecosystems for improved resilience. Is your health care facility aware of or participating in ecosystem based climate change adaptation or mitigation initiatives in your area?		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
5.0.3 Do you design and construct buildings using green design best practices, standards or guiding principles *(e.g. Leadership in Energy and Environmental Design (LEED), Living Building Challenge, or equivalent)*?		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
5.0.4 Does your health care facility take any of the following measures to contribute to improving air quality in your community?		
• Engage in air quality initiatives in the community		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Avoid the use of toxic chemicals wherever possible indoors		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Avoid the use of toxic chemicals wherever possible in landscape management		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Support local suppliers to reduce transportation miles for supplies		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Support mass transit, carpooling or ride sharing		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Support active transportation *(walking or biking)*		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Minimizes transport related emissions by understanding how facility location/design impacts transportation uses		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Other *(specify)*:_____		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A

STEP 1: Treat Water as a Resource	Value	Rank
Review the site or campus stormwater management system against future climate predictions for capacity and opportunities.		
5.1.1 Does your facility practice any of the following sustainable stormwater management practices to reduce local flooding in extreme rain events?		
• Permeable paving		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Green roofs		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Bioswales		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Open space for groundwater recharge		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
5.1.2 Does your facility practice any of the follwing sustainable stormwater management practices to reduce reliance on water supplies for landscape irrigation in droughts?		
• Native and drought tolerant species		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Rainwater harvesting		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
5.1.3 Rank overall stormwater management system with regard to capacity to recharge groundwater and manage extreme precipitation *(rainfall or snowfall)* events.	○ 3 *(Exemplary)* ○ 2 *(Functional)* ○ 1 *(Marginal)* ○ 0 *(None)* ○ N/A	

○ Yes = Action completed   ○ Somewhat = Action in progress or incomplete   ○ No = No action planned or taken   ○ Unknown = Status or action unknown   ○ N/A = Does not apply

STEP 2: Value Soils	Value	Rank			

5.2.1 Sustainable food programs can include a variety of elements that enhance resilience. Does your health facility undertake any of the following sustainable food activities?

		Rank			
• Diversify suppliers to include local food		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• On-site food production *(greenhouse, roof gardens)*		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Support or host community farmers markets		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Organic food procurement		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Antibiotic-free meat and dairy		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Reduce or eliminate sugar-sweetened beverages		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A

5.2.2 Does your facility or system compost food waste?   ○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A

5.2.3 Does your healthcare facility practice Integrated Pest Management or other sustainable landscaping and groundskeeping practices related to the following strategies?

• Control invasive species		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Reduce pesticide use		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Reduce fertilizer impacts		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Restore disturbed soils		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A

5.2.4 Does your facility practice any of the follwing sustainable landscaping protocols that enhance ecosystem services?

• Habitat for endangered species		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Bird-friendly provisioning; nesting, food plants, water		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Native landscape, wetlands or forest restoration programs		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A

5.2.5 Based on the number of "yes" responses to the question above, rank your progress on valuing soils.   ○ 3 *(Exemplary)* ○ 2 *(Functional)* ○ 1 *(Marginal)* ○ 0 *(None)* ○ N/A

STEP 3: Preserve Vegetative Cover and Open Space	Value	Rank			

5.3.1 Is your facility or campus inside the limits of any of the following sensitive sites:

• Endangered species habitat		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Wetlands		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Prime agricultual land		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Prime forest		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A

• If yes, have you have implemented measures to mitigate negative impacts from your site development in partnership with community? If so, include these measures as part of your resilience strategies. Measures may include applying setbacks, land covenant protections, etc.

5.3.2 Does your campus or facility actively seek opportunities to preserve vegetative cover, preserve open space, or create habitat through any of the following measures?   ○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A

• Structured parking lots in lieu of surface parking		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Dedicated open space		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Green roofs		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Shaded roadways		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Bioswales		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• On site food production		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A
• Landscaping with native and adapted plant species		○ Yes	○ Somewhat	○ No	○ Unknown	○ N/A

5.3.3 Many municipalities are enacting policies to preserve wildlife corridors, reopen covered streambeds, or otherwise engage in ecological restoration in order to improve resilience to future extreme weather events. Does your hospital or health system participate in and/or support your local programs?   ○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A

5.3.4 Rank your progress on preserving vegetative cover and open space based on answers to the questions above.   ○ 3 *(Exemplary)* ○ 2 *(Functional)* ○ 1 *(Marginal)* ○ 0 *(None)* ○ N/A

STEP 4: Reduce Waste	Value	Rank
5.4.1 Sustainable waste-management programs could include a variety of initiatives. Minimizing waste production can have co-benefits *(cost-savings, environmental benefits, health benefits)* and contributes to a climate resilient health care facility. Has your health care facility adopted any of the following sustainable waste management strategies?		
• Audit all waste streams		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Conserve and reduce all waste streams, measure and report progress		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Segregate waste to minimize regulated medical waste (RMW)		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Purchase reusable products and products that minimize packaging and waste		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Alternative disposal and treatement technologies *(e.g., anaerobic digestion of organic waste, autoclave landfill)*		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
• Recycling programs		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
5.4.2 Rank the overall performance of your waste management programs, based on answers to the questions above.	○ 3 *(Exemplary)* ○ 2 *(Functional)* ○ 1 *(Marginal)* ○ 0 *(None)* ○ N/A	

SUMMARY	Value	Rank
Based on your responses above, develop a list of action items to address Environmental Protection and Ecosystem Adaptation issues identified.		
5.5.1 Have you determined key sustainability and ecosystem adaptation strategies for each building and campus from this checklist?		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A
5.5.2 Have you mapped priority strategies for this Element across a timetable for implementation? *Refer to the Getting Started section of the Climate Resilience Toolkit toolkit.climate.gov.*		○ Yes ○ Somewhat ○ No ○ Unknown ○ N/A

This checklist is one component of a five element framework and toolkit for improving healthcare facility climate resilience.
*The full set of checklists, companion resources and case studies are available at **toolkit.climate.gov.***
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