GSA

PBS Customer Forum
Navigating the New Workplace

Tackling the Climate Crisis
1:30-3 pm, June 15

Agenda

- What do we mean by tackling the climate crisis?

- Key concepts: Mitigation, adaptation, and resilience

- Why is this important to our customers?

- How does sustainability fit into the climate discussion?

- What tools and resources does GSA have?

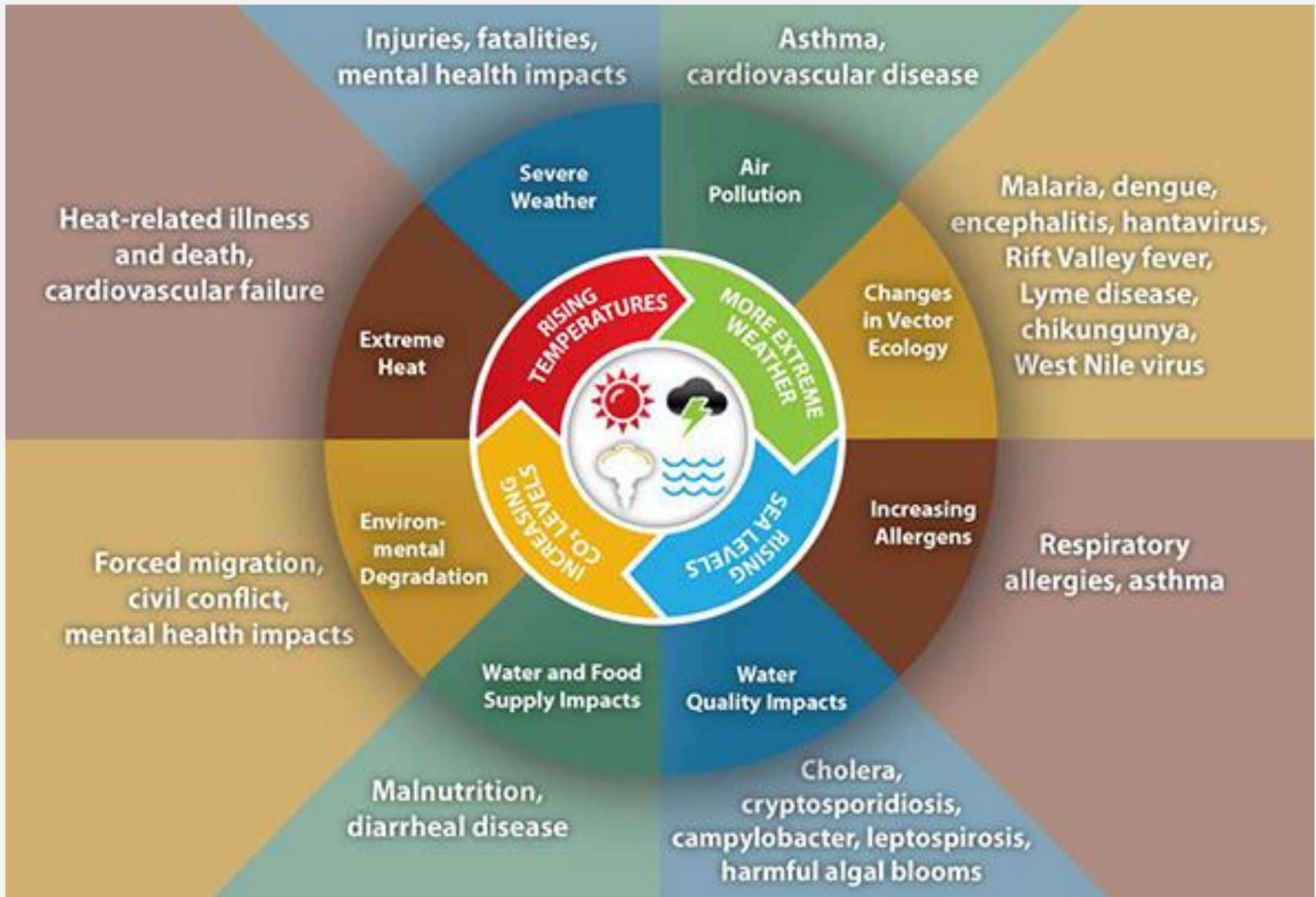# Tackling the Climate Crisis

Federal Triangle Flooding, June 2006

Climate Terminology

- **Mitigation** - Actions to reduce Greenhouse Gas emissions

- **Adaptation** - Action of adjusting to current or expected climate change and its effects

- **Resilience** - Ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate

- **Climate Literacy** - The understanding of an organization's influence on climate and climate's influence on an organization and society

Climate Risk and Human Health

Climate Risk and Adaptation

Climate Risks to Buildings: Adaptation Options

Building Envelope

Occupancy (human health and comfort)

Building Contents

Facility Access

Gardens and Vegetation

Building Systems (elevators, HVAC, plumbing, electricity)

Climate Risk and Adaptation Measures

Extreme heat
- Install external shading
- Install a white or green roof
- Improve thermal insulation
- Provide air conditioning
- Install double/triple glazed windows
- Install operable windows

Drought
- Install water efficient appliances
- Install water metering
- Implement greywater recycling
- Install rainwater capture
- Use drought resistant landscaping

Air pollution
- Provide filtered air conditioning or ventilation
- Monitor concrete condition

Wind intensity
- Assess trees for vulnerability
- Minimize overhanging structures
- Monitor roofs and cladding

Subsidence and heave
- Couple mature tree removals with drainage system installations
- Avoid planting trees close to buildings

Introduction of vector-borne diseases
- Install screens on windows and doors

Flooding: extreme precipitation, sea level rise, storm surge
- Monitor and maintain drainage
- Increase permeable outdoor surfaces
- Incorporate natural rainwater management and green roofs
- Protect backup power, mechanical, electrical, elevator mechanical rooms
- Raise site and site access to Flood Construction Levels or above

Pacific Institute for Climate Solutions
Knowledge. Insight. Action.

Graphics based on research conducted as part of a PICS-funded internship at the BC Climate Action Secretariat.

Guiding Principles for Sustainable Federal Buildings

1) Employ Integrated Design Principles
2) Optimize Energy Performance
3) Protect and Conserve Water
4) Enhance the Indoor Environment
5) Reduce the Environmental Impact of Materials
6) Assess and Consider Building Resilience

Council on Environmental Quality

Guiding Principles for Sustainable Federal Buildings

And Associated Instructions

December 2020

Appendices

- **Appendix A**: Assessing a Building Using the Guiding Principles for Sustainable Federal Buildings Criteria Checklist for New Construction and Modernization
- **Appendix B**: Assessing a Building Using the Guiding Principles for Sustainable Federal Buildings Criteria Checklist for Existing Buildings
- **Appendix C**: Assessing a New Construction, Modernization, Major Renovation or Existing Building Using Third-Party Building Certification Systems
- **Appendix D**: Assessing a Building Using the Guiding Principles for Sustainable Federal Buildings Reassessment Criteria Checklist
- **Appendix E**: Sustainable Federal Buildings Reporting Instructions
- **Appendix F**: Definitions

Assessing a Building Using the Criteria Checklist – 1.0 and 2.0

	1.0 – Employ Integrated Design Principles	
Criteria 1.1	Integrated Design and Management	Core
Criteria 1.2	Sustainable Siting	Core [Non-Core EB]
Criteria 1.3	Stormwater Management	Core [Non-Core EB]
Criteria 1.4	Infrastructure Utilization and Optimization	Non-Core
Criteria 1.5	Commissioning	Core
	2.0 – Optimize Energy Performance	
Criteria 2.1	Energy Efficiency	Core
Criteria 2.2	Energy Metering	Core
Criteria 2.3	Renewable Energy	Non-Core
Criteria 2.4	Benchmarking	Core [Non-Core EB]

# Assessing a Building Using the Criteria Checklist – 3.0 and 4.0

	3.0 – Protect and Conserve Water	
Criteria 3.1	Indoor Water Use	Core
Criteria 3.2	Water Metering	Core [Non-Core EB]
Criteria 3.3	Outdoor Water Use	Non-Core
Criteria 3.4	Alternative Water	Non-Core
	4.0 – Enhance the Indoor Environment	
Criteria 4.1	Ventilation and Thermal Comfort	Core
Criteria 4.2	Daylighting and Lighting Controls	Non-Core
Criteria 4.3	Low-Emitting Materials and Products	Non-Core
Criteria 4.4	Radon Mitigation	Core
Criteria 4.5	Moisture and Mold Control	Non-Core
Criteria 4.6	Indoor Air Quality during Construction	Non-Core
Criteria 4.7	Environmental Smoking Control	Core
Criteria 4.8	Integrated Pest Management	Core [Non-Core EB]
Criteria 4.9	Occupant Health and Wellness	Core [Non-Core EB]

Assessing a Building Using the Criteria Checklist – 5.0 and 6.0

	5.0 – Reduce the Environmental Impact of Materials	
Criteria 5.1	Materials – Recycled Content	Core
Criteria 5.2	Materials – Biobased Content	Core
Criteria 5.3	Products	Non-Core
Criteria 5.4	Ozone Depleting Substances	Core
Criteria 5.5	Hazardous Waste	Core
Criteria 5.6	Solid Waste Management	Non-Core
	6.0 – Assess and Consider Building Resilience	
Criteria 6.1	Risk Assessment	Non-Core
Criteria 6.2	Building Resilience and Adaptation	Non-Core

SFTool.gov/guidingprinciples

- Getting Started
- 3rd-Party Certification Systems
  - Crosswalks of Statutory Requirements
- GSA Total Workplace Scorecard (Section 2)
  - Occupant Health & Wellness (EB)
- Links
- Resources
  - Checklist Resources
    - Statutory References
    - IgCC Sections
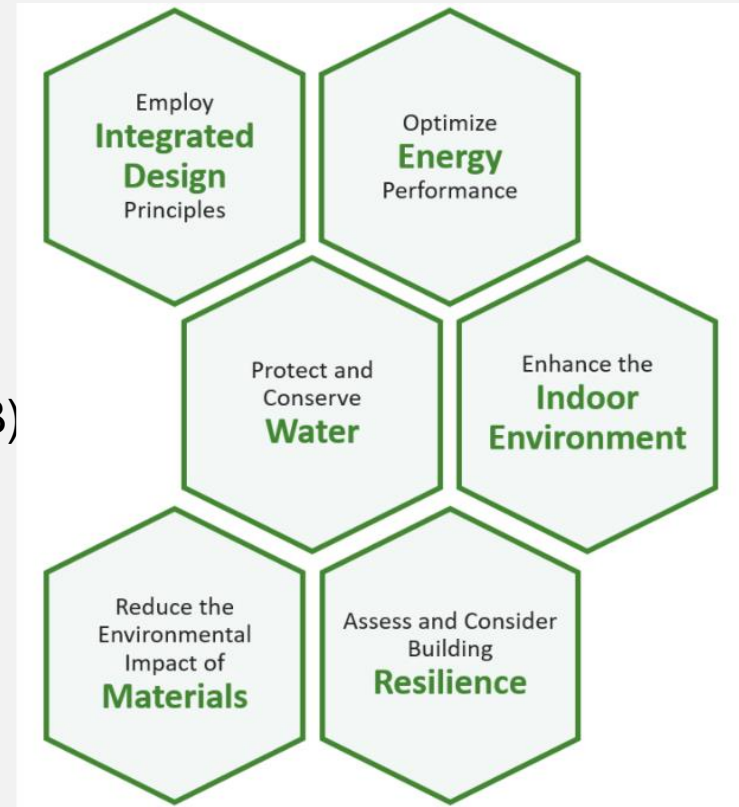
GSA Leasing

- **40+ Green Clauses** within GSA's Leasing requirements
  - Based on statutes/Executive Orders/federal policies that address:
    - Energy efficiency [Energy Star, Lighting, HVAC]
    - Water efficiency [WaterSense, Landscaping]
    - Resilience [NEPA, Floodplains, Hydrology]
    - Tenant comfort [IAQ, Ventilation, Acoustics]
    - Energy Disclosure [Utility Consumption Reporting, E Star Score]
- Align with the **Guiding Principles** (for leased settings)

- **8,000+ leases** totalling 185 million RSF
  - Located in 2,100 markets
  - Average lease size = 8,200 RSF
  - 50% in major metros; 50% in small/mid-size markets
  - GSA is typically a partial tenant in commercial/privately-owned buildings(75%); Full-building tenant in only 25% of leases

- **Guiding Principles 2020**
  - GSA Leasing will continue to require and r*eport GPs*

Guiding Principle Compliance - Leases

Construction Standards + Shell Components		Tenant Improvement Components	Utilities + Obligations During the Lease
Cons. Waste Mgmt.	Lighting- Shell	Floor Coverings	Heating & A/C
Existing Fit Out, Salvaged Materials	Systems Cx	Lighting- Interior	Janitorial Services
Vestibules	Painting-Shell	Heating & A/C	Cleaning Products
EISA- Energy Star	Plumbing Fixtures	Doors (Entry; Interior.;Hardware)	Paper Products
HVAC-Shell	IAQ During Cons.	Partitions (Subdiv.)	Landscaping
Insulation	Ventilation	Wall Finishes	Recycling
Wood Products	Green Bldg.Cert (2).	Painting- T.I.	IAQ
Adhesives/ Sealants	Partitions (2)		Utility Cons.Reptg.
Ceilings	Green Ls Submittals		Mold
RLP: EISA; Additional Submittals; Green Building Certification			