

**MEETING SUMMARY**  
**WASHINGTON CLIMATE CHANGE**  
**Human Health Preparation/Adaptation Workgroup**

Meeting #1 - June 20, 2007 9:00am – 3:00pm

**Attendance:**

1. Preparation/Adaptation Workgroup members:  
Dave Seabrook, Roger Rosenblatt, Harriett Amman, , Ned Therien,  
Stephen Bezruchka, Dick Hoskins, Ann Moudon, Lara Whitley Binder,  
Anne Marie Kimball, Leonard Eldridge
2. Washington Department of Health Liaisons: Gregg Grunenfelder, Glen Patrick
3. Washington Department of Ecology Liaison: Janice Adair
4. Others Present: Liz Dykstra, Juliet Van Eenwyk

**Background Documents:**

(all posted at [http://www.ecy.wa.gov/climatechange/cat\\_pawg\\_hh.htm](http://www.ecy.wa.gov/climatechange/cat_pawg_hh.htm))

1. Meeting Agenda
2. PowerPoint Presentation – *PNW Climate Change and Implications for Human Health*
3. Preparation/Adaptation Working Groups work plan

**Discussion items and key issues:**

1. Gregg Grunenfelder started the meeting and workgroup members introduced themselves to each other. An overview of the day's agenda was provided.
2. On behalf of Jay Manning and Julie Wilkerson, Janice Adair welcomed the workgroup members to the climate change effort and expressed her appreciation to them for the time each person was committing to the effort.
3. Gregg provided an overview of the purpose, charge, process, and timeline for the workgroup effort.
4. Lara Whitely Binder gave a PowerPoint presentation: *PNW Climate Change and Implications for Human Health*.
5. The workgroup brainstormed the variety of potential health impacts associated with climate change. The summary of that brainstorming discussion is outlined below:

**Effects**

**Physical**

Changes to our food system

- Food conversions
  - Potential impacts on low income population
  - Potential impacts on water demands
  - Increased vulnerability due to mono-crop

- Increased economic pressures on mono-cropping
  - Decreased nutrition
  - Dehydration

#### Heat related events

- Reduced air quality
  - E.g., ground-level ozone, increased pollen production
  - Increased risk of forest fires
  - Increased particulates from dust due to drier soils
- Reduced water quality
  - Warmer water temperatures
    - Less dissolved oxygen at depth
  - Increase in toxin-causing algae
- Warmer winter temperatures
  - Increased displacement from flooding and erosion
    - Sewer overflows
  - Lower snowpack
  - Reduced water quality
    - Via increased non-point source pollution
  - Crop confusion
- Warmer spring temperatures
  - Increased risk of vector-borne disease from mosquitoes
- Rising sea level
  - Increased risk of displacement from flooding, erosion, and or permanent inundation
  - Increased risk of contamination from inundated coastal hazardous waste sites
  - Potential for salt water intrusion into coastal aquifers
  - Power outages
    - Food spoilage
- Lifestyle changes
- Physical Activity
- Population displacement

#### Acute Effects

- Increased morbidity/mortality
  - Suffering
  - Vector management
    - Vector borne diseases
  - Cardiovascular disease (air quality)
- Infectious diseases
  - Nitrous Oxide-reduces immunity
- Water supply
  - Water outages
    - Sanitation issues

- Increased diarrheal diseases
- Salt water intrusion
- Alternative sources of water
  - Reclaimed water
  - Wastewater
- Water availability
  - storage/collection
- Change of crop patterns e.g. poison ivy
  - Nutritional value change
  - Increased toxins in plants
- Toxic algae blooms
  - Vibrio

### **Chronic Effects**

- Cardiovascular disease
- Asthma (frequency/severity)
- Increase in allergen responses (changes in ecology)
- Increase skin cancer and eye diseases

### **Psychological Effects**

- Promote culture shift

### **Population Effects**

- Disease surveillance
- Effects from adaptation and mitigation planning and implementation
- Emergency planning
  - Disaster preparedness
    - Increased danger of forest fire
- Medication costs
- Need for coordination across political boundaries e.g. Canada
- Institutional culture change (e.g. Use of high polluting vehicles)
- Increased economic disparities
  - Increased range of impacts between rich vs. poor
    - Climatically controlled homes
    - Increased ability to mitigate
      - E.g. hurricane Katrina
    - Individual climate impacts
    - Climate refugees
- Increased violence; stress
- Increased growth of low SES population
- Polarization of population
- Increased impacts to sensitive populations (young/old)
  - Seniors in nursing homes
- Increased population stress due to energy inefficiency

- Need to increase built environment considerations
  - Change
  - Physical activity

#### **Adaptation/Preparation**

- Consideration of population and land use
  - Need to develop or identify indicators
    - Measures
  - Reduced auto idling
  - Increased vector surveillance
  - Increased population awareness
  - Need for health impacts research and surveillance
  - Reduced consumerism
6. The workgroup established the following criteria that will be used at the next meeting to prioritize the potential human health impacts associated with climate change. A key goal for the next meeting will be to identify a set of limited but fundamental issues for further examination:
- a. Likelihood of the event (what's the strength of the science?)
  - b. Severity of the health affect (how severe is the health affect?)
  - c. Magnitude of the health affect (how wide spread is the health affect?)
  - d. Ability to prepare/adapt in ways that significantly influence the health affect

#### **Next steps and agreements:**

1. Next meeting scheduled for July 23, 2007 9:00am – 11:00am
2. Next meeting will focus on identifying a set of limited but fundamental issues for further examination. For that list of limited issues, we will also identify key underlying assumptions and data sources which will assist us in developing recommendations for preparation/adaptation actions.