

## WVGES - GEOLOGIC HAZARDS CHECKLIST

### A. FLOODING

1. Is the house or site on the floodplain?
2. Does the house or site flood often?
3. Is the house or site above the 100-year flood elevation?
4. Is the floodplain protected by a dike, levee, or floodwall?
5. Is flood insurance needed?

### B. LANDSLIDES

1. Is the house or site on a hillside slope of 10% or greater?
2. Is the slope rough, hummocky, cracked, or slipped?
3. Are there bent trees or leaning posts and utility poles on the slope? \
4. Does the rough, hummocky slope have seeps, springs, or sag ponds?
5. Are normally straight walls, fences, curbs, and walks across slopes bent or offset downhill?
6. Are there open cracks or steep scarps (breaks) across the slope?
7. Do outside stone, brick, or block walls have open or patched "step cracks" along mortar joints?
8. Do inside basement walls have open or patched cracks with bent or broken walls?
9. Are inside uphill walls supported with buttresses?
10. Are retaining walls cracked, tilted, leaning, or offset?
11. Are support pillars or posts tilted or leaning?
12. Do concrete or plastered walls have open or patched diagonal jagged cracks?
13. Have outside concrete steps moved downhill away from house?

### C. SUBSIDENCE

#### GENERAL

1. Does or will the house rest entirely on unyielding bedrock, undisturbed natural soil, or compacted, settled fill?
2. Has the house or site subsided or settled (vertical drops)?
3. Has the house tilted or is it leaning?
4. Are window and door frames square and plumb?
5. Are windows and doors stuck?
6. Do pavements, floors, or foundation walls have vertical off-set cracks?

#### Underground Mines

1. Is the house or site over deep mines?
2. Is depth-to-mine less than 300 feet?
3. Is the house or site over minable coal?
4. If the house or site is over minable coal, will that coal be mined in the near future?
5. Is mine subsidence insurance needed?

## **Karst**

1. Is the house or site on limestone with caves and sinks?
2. Is depth-of-cave less than 300 feet?
3. Does the land surface have shallow depressions, recent open cracks, or enlarging sink holes?

## **Fills**

1. Is the house or site on fill?
2. Was the fill placed on a swamp, floodplain, hillside, gully, hollow, waste dump?
3. Was the fill site prepared and the fill compacted according to standard specifications for highway and airport embankments?
4. Does the fill surface have shallow depressions, open cracks, deep gullies, or other signs of horizontal and/or vertical movement?
5. Do adjacent houses on fill have signs of subsidence damage?

## **D.GROUND WATER**

### **Water Supply**

1. Is public water supply available?
2. If not public supply, private well, spring, cistern, other?
3. Is yield adequate in dry seasons?
4. Are recent State Health Department water test records available?
5. Is fire protection water available? From: hydrant, well, pond, stream?

### **Sewage and Septic Waste Disposal**

1. Are public sewers and treatment facilities available?
2. If not public sewer, private septic tank, lagoon, home treatment plant, other?
3. Do you know location of the system and effluent outlet?
4. Are there offensive odors?
5. Are recent sanitation inspection reports available?
6. Are recent septic system maintenance records available?

### **Foundation and Basement**

1. Are basement walls wet, damp, or have peeling paint near the floor?
2. Is basement floor cracked, heaved, or wet?
3. Is there a sump pump?
4. Is there a dehumidifier?
5. Are bases of steps and posts rusted or rotted?
6. Are outside patios and pavements heaved and cracked?
7. Are gutter drain outlets separate from foundation drains?
8. Is surface run-off diverted away from the house?