

## Resiliency outline - DRAFT

### 197-73.1 Resiliency

A. Purpose – To allow the city to promote adaptability, resiliency, as well as the ability to recover and endure the impacts from climate and environment changes.

B. Sea Level Rise Projection - The use of the current intermediate sea level rise line from the most recent report from Delaware Sea-Level Rise Technical Committee by DNREC shall be used unless otherwise specified.

1. Applicability – This section of Code shall apply to development and redevelopment as noted below that are located within the 1.0% and 0.2% Floodplain:

a. Exempted Development

1. – items for future discussion

b. Critical Facilities

1. Public utilities that are located and/or proposed shall be designed to minimize flood damage using the 40 year sea level rise projection.

2. New construction of critical buildings/facilities should be built outside of the 0.2% annual flood chance; if built within the 0.2% annual chance flood the new construction shall be designed to the 80 yr. sea level rise projection or the projected design for the life of the building/structure in addition to the freeboard requirement defined by the City Code. If built within the 0.2% annual chance floodplain, the BFE shall be determined, in preferential order:

I. The 0.2% zone BFE

II. The BFE from the FEMA Flood Insurance Study.

3. Redevelopment of critical buildings/facilities within the 0.2% annual chance flood shall be designed to minimize flood damage with the 80 year sea level rise projection.

c. Redevelopment

1. Any redevelopment consistent with the definition of “Substantial Damage” or “Substantial Improvement” as defined in 197-73 shall comply with the 50 year sea level rise projection in addition to the freeboard requirement defined by the City Code. If built within the 0.2% annual chance floodplain, the BFE shall be determined, in preferential order:

I. The 0.2% zone BFE

II. The BFE from the FEMA Flood Insurance Study.

2. Flood prone properties shall not be redeveloped. Flood prone properties are properties that have met the definition of “Substantial Damage” 2 or more times.

3. Lot Coverage:

a. Maximum lot coverage shall be limited to 50% (of the total lot) without the implementation of Runoff Reduction Practices Best Management Practices (BMP’s).

b. Lot coverage may be increased up to 10% as long as three (3) items from at least 2 categories of the following Runoff Reduction Practices are

implemented. Implementation shall be consistent with the Lot Coverage design standards and shall be verified by the City Engineer. See Design Guidelines for further information.

- bioretention
  - (ex. rain garden, tree box filters, streetscape bioretention, large bioretention, raised planter box);
- Permeable pavement
  - (ex. permeable concrete pavers, grid pavement systems, pervious concrete, porous asphalt);
- Rooftop disconnect with rain barrel or cisterns;
- Rainwater harvesting
  - (ex. rain barrel or cisterns);
- Conservation landscaping;
- Bioswale;
- Infiltration
  - (ex. infiltration trench or basin);
- Green roof; and/or
- Filtration
  - (ex. surface sand filter, underground sand filter, organic, non-structural filter, perimeter sand filter).
- Other scientifically proven BMP's to address flooding.

d. New Development – for future discussion

C. Resiliency - anticipation of items that may come from the Mitigation Group

1. Applicability – This section shall apply city wide.

Key – items in yellow are for future discussion.