ADOPT FREEBOARD

Requires homes to be elevated above estimated 100-year flood levels.

Manages: 1
Costs: 0
ADOPT FREEBOARD

**PROS**
- Minimizes financial impact of flood events
- Earns CRS points

**CONS**
- Potential public resistance from homebuilders/developers
- Increased cost of building

Regional Comparison:
- Suburban: 1
- Urban: 1
MAINTAIN DRAINAGE INFRASTRUCTURE

Maintenance required to ensure the functionality of existing drainage system

Manages: 3
Costs: 4
MAINTAIN DRAINAGE INFRASTRUCTURE

**Pros**
- Maintains level of service

**Cons**
- May be outdated
- Limited adaptability to changing conditions

Regional Comparison:
- Suburban: 3, 4
- Urban: 3, 4
EXPAND DRAINAGE INFRASTRUCTURE

Expand the capacity of existing drainage systems

Manages: 2

Costs: 4
EXPAND DRAINAGE INFRASTRUCTURE

**PROS**
- Can handle large quantities of stormwater

**CONS**
- Impacts downstream neighbors
- Requires additional maintenance
- Limited adaptability

Regional Comparison:
- Suburban: 2
- Urban: 2
Preserves natural areas and other open spaces to store/slow down stormwater
CONSERVE AND/OR RESTORE NATURAL AREAS

RURAL

PROS
- Maintains natural landscape storage capacity
- Provides recreation and ecotourism opportunities
- Maintains habitat and ecosystem services

CONS
- Potential resistance from property owners and developers

Regional Comparison:
  Suburban: 2☆, 2☆☆
  Urban: 1☆, 2☆☆
Uses open space to engineer a feature designed to detain excess stormwater.
## CONSTRUCT LARGE SCALE DETENTION FEATURE

### RURAL

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Can be recreational asset</td>
<td>• Requires maintenance</td>
</tr>
<tr>
<td></td>
<td>• Impacts wildlife and natural habitat</td>
</tr>
</tbody>
</table>

**Regional Comparison:**

- **Suburban:** 2 🌟, 2 🌿
- **Urban:** 1 🌟, 3 🌿
RESTRICT FILL IN FLOODPLAIN

Limits the amount of fill that can be used to elevate structures in the floodplain

Manages: 1
Costs: 0
RESTRICT FILL IN FLOODPLAIN

PROS
- Maintains floodplain storage capacity
- Reduces grey infrastructure needs
- Maintains habitat
- Maintains water quality
- Earns CRS points

CONS
- Potential resistance from property owners
- Potential resistance from developers/builders
- Can increase building costs

Regional Comparison:
Suburban: 2
Urban: 1
INCREASE COMMUNITY REVENUE (TAXES/FEES)

RURAL

REVENUE
Raises revenues through tax or utility rate increases

Gain: +1

Manages: 0

CENTER for PLANNING EXCELLENCE
INCREASE COMMUNITY REVENUE (TAXES/FEES)

**PROS**
- Greater ability to fund risk-reducing efforts

**CONS**
- Likely public resistance

Regional Comparison:
Suburban: +2  ○
Urban: +3  ○
Incentivizes implementation of GI on private property with features designed to reduce runoff
PROGRAM FOR PRIVATE GREEN INFRASTRUCTURE

**PROS**

- Engages residents in shared stormwater management goals
- Potential for water quality improvements, improved aesthetics, increased property value

**CONS**

- Effectiveness depends on private commitment to maintenance

Regional Comparison:

- Suburban: 2, 1
- Urban: 2, 1
Development designed to have no net increase in stormwater runoff from 100-year storm event.
ADOPT/INCREASE STORM EVENT DESIGN STANDARDS

PROS
- Reduces impact of new development
- Acknowledges the consequences of our actions

CONS
- Potential public resistance by landowners and developers
- Increased costs for development
- Requires long-term maintenance

Regional Comparison:
Suburban: 1
Urban: 1

RURAL
Incorporates green infrastructure into public infrastructure projects
<table>
<thead>
<tr>
<th>RURAL</th>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can improve the built environment and offer a public amenity</td>
<td>Requires maintenance</td>
</tr>
<tr>
<td></td>
<td>Improves water quality of runoff</td>
<td></td>
</tr>
</tbody>
</table>

**Regional Comparison:**
- Suburban: 2, 3
- Urban: 3, 4
RURAL Costs: Manages:

**PRIVATE PROPERTY BUYOUT**

Buys out flood prone properties and returns land to natural state

- Manages: 3
- Costs: 2
PRIVATE PROPERTY BUYOUT

PROS
• Minimizes repetitive flood damages
• Increases natural storage capacity
• Improves public safety

CONS
• Potential resistance from property owners

Regional Comparison:
Suburban: 2●, 3○
Urban: 1●, 4○
CONDUCT EDUCATIONAL CAMPAIGN

Manages: +1

Costs: 1

Informs residents about a chosen water management strategy to raise support and increase effectiveness.
This card may be combined with one policy to reduce additional water. Upstream and/or downstream partners must agree to policy adoption.
This card may be combined with one program to reduce additional water. Upstream and/or downstream partners must agree to coordinated program implementation.
Implement Other Regional Strategy

Upstream and/or downstream partners must agree to coordinated approach.
ADOPT FREEBOARD

Requires homes to be elevated above estimated 100-year flood levels

Manages: 1
Costs: 0
ADOPT FREEBOARD

**PROS**
- Minimizes financial impact of flood events
- Earns CRS points

**CONS**
- Potential public resistance from homebuilders/developers
- Increased cost of building

Regional Comparison:
- Rural: 1
- Urban: 1
Maintenance required to ensure the functionality of existing drainage system.
MAINTAIN DRAINAGE INFRASTRUCTURE

PROS
• Maintains level of service

CONS
• May be outdated
• Limited adaptability to changing conditions

Regional Comparison:
Rural: 3️⃣, 4️⃣
Urban: 3️⃣, 4️⃣
EXPAND DRAINAGE INFRASTRUCTURE

Expand the capacity of existing drainage systems

Manages: 2
Costs: 4
### PROS
- Can handle large quantities of stormwater

### CONS
- Impacts downstream neighbors
- Requires additional maintenance
- Limited adaptability

#### Regional Comparison:
- Rural: 2💧, 4💧
- Urban: 2💧, 4💧
Preserves natural areas and other open spaces to store/slow down stormwater.
CONSERVE AND/OR RESTORE NATURAL AREAS

PROS
• Maintains natural landscape storage capacity
• Provides recreation and ecotourism opportunities
• Maintains habitat and ecosystem services

CONS
• Potential resistance from property owners and developers

Regional Comparison:
Rural: 3 ●, 2 ○
Urban: 1 ●, 2 ○
CONSTRUCT LARGE SCALE DETENTION FEATURE

Uses open space to engineer a feature designed to detain excess stormwater

Costs: 2
Manages: 2
CONSTRUCT LARGE SCALE DETENTION FEATURE

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can be recreational asset</td>
<td>Requires maintenance</td>
</tr>
<tr>
<td></td>
<td>Impacts wildlife and natural habitat</td>
</tr>
</tbody>
</table>

SUBURBAN

Regional Comparison:
- Rural: 3 ◆, 1 ♦
- Urban: 1 ♦, 3 ◆
RESTRICT FILL IN FLOODPLAIN

Limits the amount of fill that can be used to elevate structures in the floodplain

Manages: 2
Costs: 0
RESTRICT FILL IN FLOODPLAIN

### PROS
- Maintains floodplain storage capacity
- Reduces grey infrastructure needs
- Maintains habitat
- Maintains water quality
- Earns CRS points

### CONS
- Potential resistance from property owners
- Potential resistance from developers/builders
- Can increase building costs

**Regional Comparison:**
- Rural: 1
- Urban: 1
INCREASE COMMUNITY REVENUE (TAXES/FEES)

SUBURBAN

REVENUE

Raises revenues through tax or utility rate increases

Gain: +2

Manages: 0
INCREASE COMMUNITY REVENUE (TAXES/FEES)

**PROS**

- Greater ability to fund risk-reducing efforts

**CONS**

- Likely public resistance

---

**Regional Comparison:**

- Rural: +1 🔫
- Urban: +3 🔫
PROGRAM FOR PRIVATE GREEN INFRASTRUCTURE

Incentivizes implementation of GI on private property with features designed to reduce runoff

Manages: 2
Costs: 1
PROGRAM FOR PRIVATE GREEN INFRASTRUCTURE

PROS
- Engages residents in shared stormwater management goals
- Potential for water quality improvements, improved aesthetics, increased property value

CONS
- Effectiveness depends on private commitment to maintenance

Regional Comparison:
Rural: 1, 1
Urban: 2, 1
ADOPT/INCREASE STORM EVENT DESIGN STANDARDS

Development designed to have no net increase in stormwater runoff from 100-year storm event

Manages: 1
Costs: 0
# Adopt/Increase Storm Event Design Standards

## Regional Comparison:

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduces impact of new development</td>
<td>• Potential public resistance by landowners and developers</td>
</tr>
<tr>
<td>• Acknowledges the consequences of our actions</td>
<td>• Increased costs for development</td>
</tr>
<tr>
<td></td>
<td>• Requires long-term maintenance</td>
</tr>
</tbody>
</table>

**Suburban: 1 🌈**

**Urban: 1 🌈**
Incorporates green infrastructure into public infrastructure projects

Manages: 2

Costs: 3
**IMPLEMENT PUBLIC GREEN INFRASTRUCTURE**

**PROS**
- Can improve the built environment and offer a public amenity
- Improves water quality of runoff

**CONS**
- Requires maintenance

**Regional Comparison:**
- Rural: 1, 3
- Urban: 3, 4

**SUBURBAN**
PRIVATE PROPERTY BUYOUT

Buys out flood prone properties and returns land to natural state

Manages: 2

Costs: 3
PRIVATE PROPERTY BUYOUT

PROS

• Minimizes repetitive flood damages
• Increases natural storage capacity
• Improves public safety

CONS

• Potential resistance from property owners

Regional Comparison:
Rural: 3 2
Urban: 1 4
Informs residents about a chosen water management strategy to raise support and increase effectiveness.
This card may be combined with one policy to reduce additional water. Upstream and/or downstream partners must agree to policy adoption.
This card may be combined with one program to reduce additional water. Upstream and/or downstream partners must agree to coordinated program implementation.
Upstream and/or downstream partners must agree to coordinated approach.
ADOPT FREEBOARD

Requires homes to be elevated above estimated 100-year flood levels

Manages: 1

Costs: 0
ADOPT FREEBOARD

PROS
- Minimizes financial impact of flood events
- Earns CRS points

CONS
- Potential public resistance from homebuilders/developers
- Increased cost of building

Regional Comparison:
- Rural: 1
- Suburban: 1
Maintenance required to ensure the functionality of existing drainage system.
<table>
<thead>
<tr>
<th></th>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Maintains level of service</td>
<td>May be outdated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited adaptability to changing conditions</td>
</tr>
</tbody>
</table>

Regional Comparison:
- Rural: 3️⃣, 4️⃣
- Suburban: 3️⃣, 4️⃣
EXPAND DRAINAGE INFRASTRUCTURE

Expand the capacity of existing drainage systems

Manages: 2
Costs: 4
EXPAND DRAINAGE INFRASTRUCTURE

PROS
• Can handle large quantities of stormwater

CONS
• Impacts downstream neighbors
• Requires additional maintenance
• Limited adaptability

Regional Comparison:
Rural: 2💧, 4💧
Suburban: 2💧, 4💧
Preserves natural areas and other open spaces to store/slow down stormwater
CONSERVE AND/OR RESTORE NATURAL AREAS

**PROS**
- Maintains natural landscape storage capacity
- Provides recreation and ecotourism opportunities
- Maintains habitat and ecosystem services

**CONS**
- Potential resistance from property owners and developers

Regional Comparison:
- Rural: 3, 2
- Suburban: 2, 2
CONSTRUCT LARGE SCALE DETENTION FEATURE

Uses open space to engineer a feature designed to detain excess stormwater

Manages: 1

Costs: 3
CONSTRUCT LARGE SCALE DETENTION FEATURE

**PROS**
- Can be recreational asset

**CONS**
- Requires maintenance
- Impacts wildlife and natural habitat

Regional Comparison:
- Rural: 3️⃣, 1️⃣
- Suburban: 2️⃣, 2️⃣
REstrict Fill In Floodplain

Limits the amount of fill that can be used to elevate structures in the floodplain.

Manages: 1
Costs: 0
## Restricted Fill in Floodplain

### Pros
- Maintains floodplain storage capacity
- Reduces grey infrastructure needs
- Maintains habitat
- Maintains water quality
- Earns CRS points

### Cons
- Potential resistance from property owners
- Potential resistance from developers/builders
- Can increase building costs

### Regional Comparison:
- Rural: 1
- Suburban: 2

---

**According to [Source](#), the decision to restrict fill in floodplains has various advantages and disadvantages. In urban areas, the benefits include maintaining floodplain storage capacity, reducing grey infrastructure needs, preserving habitat, maintaining water quality, and earning CRS points. However, there are also concerns about resistance from property owners and developers, as well as potential increases in building costs. In rural and suburban areas, the impact of such restrictions might be less pronounced.**
INCREASE COMMUNITY REVENUE (TAXES/FEES)

REVENUE

Raises revenues through tax or utility rate increases

Manages: 0

Gain: +3
<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Greater ability to fund risk-reducing efforts</td>
<td>• Likely public resistance</td>
</tr>
</tbody>
</table>

Regional Comparison:
- Rural: +1
- Suburban: +2
Incentivizes implementation of GI on private property with features designed to reduce runoff
INCREASE COMMUNITY REVENUE (TAXES/FEES)

**PROS**
- Engages residents in shared stormwater management goals
- Potential for water quality improvements, improved aesthetics, increased property value

**CONS**
- Effectiveness depends on private commitment to maintenance

Regional Comparison:
- Rural: 1 •, 1 ○
- Suburban: 2 ●, 1 ○
ADOPT/INCREASE STORM EVENT DESIGN STANDARDS

Development designed to have no net increase in stormwater runoff from 100-year storm event

Manages: 1
Costs: 0

Typical Planting (45-200 ltr)
ADOPT/INCREASE STORM EVENT DESIGN STANDARDS

**PROS**
- Reduces impact of new development
- Acknowledges the consequences of our actions

**CONS**
- Potential public resistance by landowners and developers
- Increased costs for development
- Requires long-term maintenance

Regional Comparison:
- Rural: 1
- Suburban: 1
IMPLEMENT PUBLIC GREEN INFRASTRUCTURE

Incorporates green infrastructure into public infrastructure projects

Manages: 3
Costs: 4
IMPLEMENT PUBLIC GREEN INFRASTRUCTURE

PROS

• Can improve the built environment and offer a public amenity
• Improves water quality of runoff

CONS

• Requires maintenance

Regional Comparison:
Rural: 1  3
Urban: 2  3
Buys out flood prone properties and returns land to natural state
PRIVATE PROPERTY BUYOUT

PROS
• Minimizes repetitive flood damages
• Increases natural storage capacity
• Improves public safety

CONS
• Potential resistance from property owners

Regional Comparison:
Rural: 3 ●, 2 ○
Suburban: 2 ●, 3 ○
Informs residents about a chosen water management strategy to raise support and increase effectiveness.
This card may be combined with one policy to reduce additional water. Upstream and/or downstream partners must agree to policy adoption.
This card may be combined with one program to reduce additional water. Upstream and/or downstream partners must agree to coordinated program implementation.
Upstream and/or downstream partners must agree to coordinated approach.