ADOPT FREEBOARD

POLICY

RURAL

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

100-YEAR FLOOD

BUILD ABOVE

Manages: 1

Costs: 0

CENTER FOR PLANNING EXCELLENCE
ADOPT FREEBOARDS

**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

RURAL PROGRAM

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- May be outdated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

PROGRAM

Expand the capacity of existing drainage systems

Manages: 2

Costs: 4
EXPAND DRAINAGE INFRASTRUCTURE

RURAL

PROS
• Can handle large quantities of stormwater

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

Regional Comparison:
Suburban: 2☐, 4❍
Urban: 2☐, 4❍
CONSERVE AND/OR RESTORE NATURAL AREAS

PROGRAM

Preserves natural areas and other open spaces to store/slow down stormwater

Manages: 3

Costs: 2
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:
Suburban: 2〇, 2〇
Urban: 1〇, 2〇
CONSTRUCT LARGE SCALE DETENTION FEATURE

PROGRAM

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

Manages: 3

Costs: 1
## Regional Comparison:

**Suburban:** 2 •, 2 ○  
**Urban:** 1 •, 3 ○
RESTRICT FILL IN FLOODPLAIN

**POLICY**

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

- Manages: 1
- Costs: 0
## Restrict Fill In Floodplain

<table>
<thead>
<tr>
<th><strong>Rural</strong></th>
<th><strong>Pros</strong></th>
<th><strong>Cons</strong></th>
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<tbody>
<tr>
<td></td>
<td>• Maintains floodplain storage capacity</td>
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</tr>
<tr>
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<td>• Reduces grey infrastructure needs</td>
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<tr>
<td></td>
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<td>• Can increase building costs</td>
</tr>
<tr>
<td></td>
<td>• Maintains water quality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Earns CRS points</td>
<td></td>
</tr>
</tbody>
</table>

### Regional Comparison:

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

REVENUE
Raises revenues through tax or utility rate increases

Manages: 0
Gain: +1
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

Manages: 1

Costs: 1
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
Design standards limit the amount of stormwater runoff from new development based on a particular 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
Incorporates green infrastructure into public infrastructure projects

Manages: 1

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:
- Suburban: 2️⃣, 3️⃣
- Urban: 3️⃣, 4️⃣
Buys out flood prone properties and returns land to natural state

PRIVATE PROPERTY BUYOUT

PROGRAM

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

PROGRAM

Informs residents about a chosen water management strategy to raise support and increase effectiveness.

Manages: +1

Costs: 1
Have an idea for a policy or program to manage floodwater in your area? Write it in the space above.
ADOPT REGIONAL POLICY

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 POLICY

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

Manages: 1
Costs: 0

CENTER for PLANNING EXCELLENCE
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
MAINTAIN DRAINAGE INFRASTRUCTURE

PROGRAM

Maintenance required to ensure the functionality of existing drainage system

Manages: 3

 Costs: 4

CENTER FOR PLANNING EXCELLENCE
## MAINTAIN DRAINAGE INFRASTRUCTURE

### PROS
- Maintains level of service

### CONS
- May be outdated
- Limited adaptability to changing conditions

### Regional Comparison:
- Rural: 3 ☺, 4 ☪
- Urban: 3 ☺, 4 ☪
EXPAND DRAINAGE INFRASTRUCTURE

PROGRAM

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 ○
- **Urban:** 2 ●, 4 ○
CONSERVE AND/OR RESTORE NATURAL AREAS

PROGRAM

Preserves natural areas and other open spaces to store/slow down stormwater

Manages: 2
Costs: 2
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

PROGRAM

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

SUBURBAN

Manages: 2

Costs: 2
**CONSTRUCT LARGE SCALE DETENTION FEATURE**

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
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<td>• Can be recreational asset</td>
<td>• Requires maintenance</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

**Regional Comparison:**
- Rural: 3izioni, 1izioni
- Urban: 1izioni, 3izioni
RESTRICT FILL IN FLOODPLAIN

**POLICY**

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

---

**SUBURBAN**
INCREASE COMMUNITY REVENUE (TAXES/FEES)

REVENUE

Raises revenues through tax or utility rate increases

Gain: +2

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

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

Costs: 1

Manages: 2

CENTER FOR PLANNING EXCELLENCE
Design standards limit the amount of stormwater runoff from new development based on a particular 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
IMPLEMENT PUBLIC GREEN INFRASTRUCTURE

Manages: 2

Costs: 3

Incorporates green infrastructure into public infrastructure projects
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
PRIVATE PROPERTY BUYOUT

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%
- Urban: 1%, 4%

SUBURBAN
CONDUCT EDUCATIONAL CAMPAIGN

**PROGRAM**

Informs residents about a chosen water management strategy to raise support and increase effectiveness.

**Costs:** 1

**Manages:** +1
Have an idea for a policy or program to manage floodwater in your area? Write it in the space above.
ADOPT REGIONAL POLICY

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

POLICY

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

Manages: 1

Costs: 0

URBAN
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
MAINTAIN DRAINAGE INFRASTRUCTURE

**PROS**
- Maintains level of service

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

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

PROGRAM

Expand the capacity of existing drainage systems

URBAN

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
Uses open space to engineer a feature designed to detain excess stormwater.
CONSTRUCT LARGE SCALE DETENTION FEATURE

**PROS**
- Can be recreational asset

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

**Regional Comparison:**
- Rural: 3♂, 1♀
- Suburban: 2♂, 2♀
RESTRICT FILL IN FLOODPLAIN

LIMITS THE AMOUNT OF FILL THAT CAN BE USED TO ELEVATE STRUCTURES IN THE FLOODPLAIN

COSTS:

Manages: 1

POLICY

Costs: 0

CENTRAL FOR PLANNING EXCELLENCE
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
- Suburban: 2
INCREASE COMMUNITY REVENUE (TAXES/FEES)

REVENUE

Raises revenues through tax or utility rate increases

Manages: 0
Gain: +3
INCREASE COMMUNITY REVENUE (TAXES/FEES)

PROS
• Greater ability to fund risk-reducing efforts

CONS
• Likely public resistance

Regional Comparison:
Rural: +1
Suburban: +2

CONS

URBAN
PROGRAM FOR PRIVATE GREEN INFRASTRUCTURE

PROGRAM

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

Costs: 1

Manages: 2
### 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
Design standards limit the amount of stormwater runoff from new development based on a particular 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:
- Rural: 1
- Suburban: 1

URBAN
Implement Public Green Infrastructure

Program

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
Suburban: 2, 3
PRIVATE PROPERTY BUYOUT

PROGRAM

Buys out flood prone properties and returns land to natural state

Manages: 1

Costs: 4

CENTER for PLANNING EXCELLENCE
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 ⬦
CONDUCT EDUCATIONAL CAMPAIGN

PROGRAM

Informs residents about a chosen water management strategy to raise support and increase effectiveness.

Manages: +1

Costs: 1

URBAN
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