

# Justification for Floodplain Regulatory Standards in Illinois

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Proactive Illinois floodplain and floodway regulatory standards have prevented billions of dollars of flood damage over the years and have proven they are good for Illinois businesses and Illinois tax payers. The benefits of proactive floodplain and floodway regulatory standards promulgated by the Rivers, Lakes and Streams Act [615 ILCS 5] include:

1. Promoting and protecting the public health, safety, and general welfare of the citizens from the hazards of flooding;
2. Preventing floodplain activities from causing increased flood damage to others;
3. Avoiding lawsuits and challenges over development related aggravated flood problems;
4. Lowering flood insurance premiums in many communities statewide;
5. Lessening Illinois taxpayer burden for future flood control improvements and repairs/upgrades to public facilities;
6. Reducing flood losses over time by mapping potential flood risk and creating more resilient communities in Illinois capable of passing major flood events with minimal damage; and
7. Preserving vital natural floodwater storage capacity in the floodplain to provide open space opportunities, parks, wildlife habitat, trails, and agricultural crop production.

Illinois has one of the nation's largest inland systems of rivers, lakes, and streams, with over 15% of Illinois' land area prone to flooding. However, proactive Department of Natural Resources regulatory floodplain and floodway programs that have been enforcing higher than National Flood Insurance Program (NFIP) floodplain and floodway regulatory standards in practice since 1971, continue to reduce the state's exposure to the risk of flooding. Illinois has long been recognized as a national leader in floodplain management and loss reduction. While no unified Federal standard currently exists, nearly all communities in the state have adopted minimum standards required by the NFIP. This brief explains the benefits to the people of Illinois that are provided by the current state standards that build upon the NFIP minimum standards.

## **ILLINOIS FLOODPLAIN and FLOODWAY STANDARDS:**

Floodway construction activities must not singularly or cumulatively result in any unmitigated flood impacts to others outside the project right-of-way.

<u>Standard</u>	<u>NFIP Standard</u>	<u>Illinois Standard</u>
Floodway storm frequency	1% chance (100-year)	1% chance (100-year)
Floodway profile surcharge*	1.0 foot	0.1 foot
Floodway storage preservation	not considered	90% of floodplain storage
Floodway velocity increases	not considered	no more than 10% increase

Floodway development: NE Illinois	no rise in floodway profiles	appropriate use only: no impact
Floodway development: Downstate IL	no rise in floodway profiles	same as the NFIP standard
Floodplain (no floodway) development	1.0 foot flood stage increase	0.1 foot stage increase (urban) 0.5 foot stage increase (rural)
Freeboard	minimum 0.0 feet	minimum 1.0 foot

\* allowable increase in the 1% chance (100-year frequency) flood water surface elevation based on artificial lateral encroachments (squeezing in) of the floodplain to define the regulatory floodway limits of the floodplain

## **1. Promoting and protecting the public health, safety, and general welfare of the citizens from the hazards of flooding;**

- Flooding accounts for approximately 85% of all disaster declarations yet is one of the most preventable disasters through robust floodplain and floodway management standards.
- Flooding impacts infrastructure in Illinois such as roadways, utilities, railways and airports adversely affecting commuters, the transport of goods, and Illinois businesses. Flooded roadways also impact the abilities of fire, police and rescue personnel to respond to floods and other emergencies. Illinois floodplain and floodway standards prevent this problem from getting worse.
- Adverse urban flooding places greater demand on community resources (fire, police, public works personnel) to carry out disaster response and recovery tasks such as closing roadways, redirecting traffic, performing flood rescues, undertaking flood fighting, safeguarding vacated homes and businesses, and cleaning up after the flood to protect the public health, safety, and general welfare of the citizens from the hazards of flooding at taxpayer expense.
- Nine states across the nation, including Illinois, Wisconsin, Michigan, Indiana, Minnesota, Ohio, Colorado, Montana, and New Jersey, currently enforce stronger than NFIP minimum floodplain and floodway regulatory standards. Many other states understand this need for stronger standards and are working toward implementing such standards.
- Proactive regulatory standards are more conservative than the minimal National Flood Insurance (NFIP) Program standards and are therefore, universally encouraged by every professional association in the nation associated with engineering and floodplain management.
- Nearly every Illinois community (about 1000) participates in the National Flood Insurance (NFIP) Program. Each of these communities has adopted some variation of higher regulatory standards.

## **2. Preventing floodplain activities from causing increased flood damages to others;**

- The objective of the Rivers Lakes and Streams Act is not to limit development but rather to prevent unnecessary damages. IDNR's Resource Management Programs remain committed to

the prevention of future flood damages to others including Illinois businesses, public facilities, and homeowners.

- The minimum floodplain management standards of the National Flood Insurance Program (NFIP) are recognized as bare minimums for insurance program purposes. They are not intended to reduce or control escalating flood problems.
- According to the National Association of Stormwater and Floodplain Managers (ASFPM), current NFIP standards for floodplain management allow development activity to divert flood waters onto other properties; to reduce the size of natural channel and overbank conveyance areas; to fill essential valley storage space; and to alter water velocities - all with little or no regard for how these changes affect other people and property in the floodplain or elsewhere in the watershed.
- Illinois' mapping and development standards allow for the variable effects of urbanization, ice jam flooding, sedimentation, debris blockage, levee failure/overtopping, unregulated dam failures and climate change on future flood levels to avoid continually increasing flood damages to Illinois businesses and property owners in response to ever changing conditions in a watershed.
- Illinois' floodway mapping and development standards prevent at-risk flood prone structures from being flooded even greater. Elimination of Illinois' standards would allow for the placement of fill to a greater extent in the floodplain, causing a real increase in flood water elevations. This would increase flood damages to both existing commercial and residential properties already subject to flooding, as well as those properties currently not flooding.
- Absent Illinois standards, local governments will assume that the minimum NFIP standards provide acceptable flood protection and thereby disconnect themselves from the consequences and impacts of their land use decisions. The end result is that the burden of inevitable increased flood damages is transferred from those who make (and benefit from) the local decisions about land use to those who pay for the flood disaster recovery-principally the taxpayers.
- Using a 0.1 foot rise storage floodway in Illinois minimizes the difference between the 1% chance (100-year frequency) floodplain water surface elevation and the eventual floodway water surface elevation 0.1 foot higher. The FEMA flood elevation profile shown on the Flood Insurance Rate Maps (FIRM) and used to guide development is the lower 1% chance (100-year frequency) floodplain water surface elevation, not the eventual "one-foot rise" elevation allowed by NFIP standards, putting development at certain risk.
- Illinois' current standards require a worst case analysis be conducted to evaluate cumulative flood impact effects of similar reasonably anticipated activities in the floodway to assure that long term, multiple activities do not increase damages. NFIP standards do not account for this kind of cumulative impacts of lost floodplain conveyance or floodplain storage resulting in gradually increasing flood impacts in the watershed.

- Absent IDNR's Resource Management regulatory programs, nearly 1000 NFIP participating communities in Illinois will still be required to complete and/or review an engineering "No Rise Analysis" prior to any floodway development activity. This review is currently accomplished through the IDNR's Resource Management regulatory programs.

### **3. Avoiding lawsuits and challenges over development related aggravated flood problems;**

- Illinois' standards were created to prevent flood damages to neighboring properties minimizing the need for legal actions to resolve flood damage disputes. The standards continue to accomplish that goal.
- Potentially impacted taxpayers and businesses adjacent to new activities in the floodway do not have to prove damages in the floodway in a court of law, higher standards in Illinois eliminate the need to conduct such a private flood damage analysis at private or corporate expense.
- Historically Illinois has threatened legal actions against neighboring states for floodplain development activities that could lead to, or have led to, levee failures or increased damages in Illinois. Illinois standards minimize similar legal actions against Illinois from our neighbors.

### **4. Lowering flood insurance premiums in many communities statewide**

- The National Flood Insurance Program (NFIP) Community Rating System (CRS) rewards communities who adopt standards that are higher than their minimum NFIP standards. Business owners and residents who carry flood insurance are rewarded with lower flood insurance premiums.
- Over twenty five percent (25%) of all flood insurance policies in Illinois benefit from the state's floodplain and floodway standards. This premium reduction offsets the annual increase in flood insurance premiums now required by Congress.
- Illinois CRS communities statewide rely on Illinois' current standards for at least 5% of their flood insurance premium reductions.
- Total premium savings to Illinois flood insurance policy holders as a result of these stronger standards is over \$2 million annually.
- Illinois ranks #1 in the nation for the fewest number of flood insurance claims on new structures thanks to Illinois' standards protecting new development from flooding.

### **5. Lessening Illinois taxpayer burden for future flood control improvements and repairs/upgrades to public facilities;**

- The absence of sound floodplain and floodway construction and mapping standards prior to the 1970's in Illinois has resulted in the heavily urbanized floodplains in the Chicago metro area and

in many other communities statewide. In many instances structures were allowed to be built adjacent to the river bank further blocking flood conveyance and storage. Proactive floodplain programs and standards now prevent Illinois from repeating uninformed development mistakes of the past. However, the State of Illinois has spent millions of taxpayer dollars statewide to remediate these past blunders and protect Illinois businesses and citizens from the perils of flooding.

- For example, in the Des Plaines River watershed alone, the State of Illinois has spent over \$210,000,000 since the 1970's to reduce flood damages in that watershed created by developments originally built at lower or nonexistent floodway standards.
- Nearly \$60,000,000 of State of Illinois taxpayer funds have also been spent in the North Branch of the Chicago River watershed to remediate flooding created by the absence of higher floodway standards during the height of development in that watershed.
- The absence of higher floodway standards also allowed for construction of many public facilities (water treatment plants, fire stations, city halls, etc.) to be built in harm's way.
- Implementation of robust floodway standards saves the state of Illinois taxpayers from having to fund similar public flood control and public flood prone structure buyout projects in those areas that have been developed using the higher floodway standards.
- The absence of Illinois floodway and floodplain standards would lessen the functionality of existing flood control and drainage structures which would require expensive upgrades and/or repairs at taxpayer expense.

**6. Reducing flood losses over time by mapping potential flood risk and creating more resilient communities in Illinois capable of passing major flood events with minimal damage.**

- Illinois floodplain and floodway regulations work toward eliminating tax payer subsidized floodplain occupation and development.
- Maintaining Illinois floodway standards will prevent currently "accredited" levees in Illinois from decertification due to increased flood stages. Levee decertification will result in increased flood risk and the need for thousands of Illinois residents and businesses to purchase flood insurance where none is currently required.
- Preserving Illinois standards for floodway mapping in Illinois maintains the validity of the community FEMA maps in each NFIP community and avoids the need to change hundreds of floodway map panels and ordinances in Illinois at taxpayer expense.
- Maintaining higher standard floodplain and floodway mapping minimizes the true size of the floodplain (i.e. no allowable increased flood heights due to development impacts) that many Illinois communities are seeking to clear and/or protect from flood damages in an effort to

become more resilient to natural flood hazards. This is especially important when considering the potential impacts of climate change.

**7. Preserving vital natural floodwater storage capacity in the floodplain to provide open space opportunities, parks, wildlife habitat, trails, and agricultural crop production.**

- Open space land use in floodways allows for flood storage and conveyance to be preserved with minimal on-site property damage as compared to developed floodplains.
- Preserving natural floodwater storage capacity in the floodplain is strongly supported by environmental groups, professional associations, and open space advocates statewide.

The State of Illinois must continue to demonstrate responsible floodplain management and responsible stewardship of taxpayer funds through leading by example.