

No Adverse Impact (NAI)

A Common Sense Approach to Floodplain Management

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WHY NAI?

NFIP Limitations....

- Few Restricted Areas
 - Seaward of mean high tide
 - Floodways
- No requirement to protect natural functions of floodplains
- No limits on siting of critical facilities
- Fill in floodplain is allowed and facilitated



Today's Floodplain Is Not Necessarily Tomorrow's Floodplain



If you prevent floodplain fill,
you keep existing development safe.

Today's Floodplain Is Not Necessarily Tomorrow's Floodplain

Large areas of the
floodplain are filled
and developed.

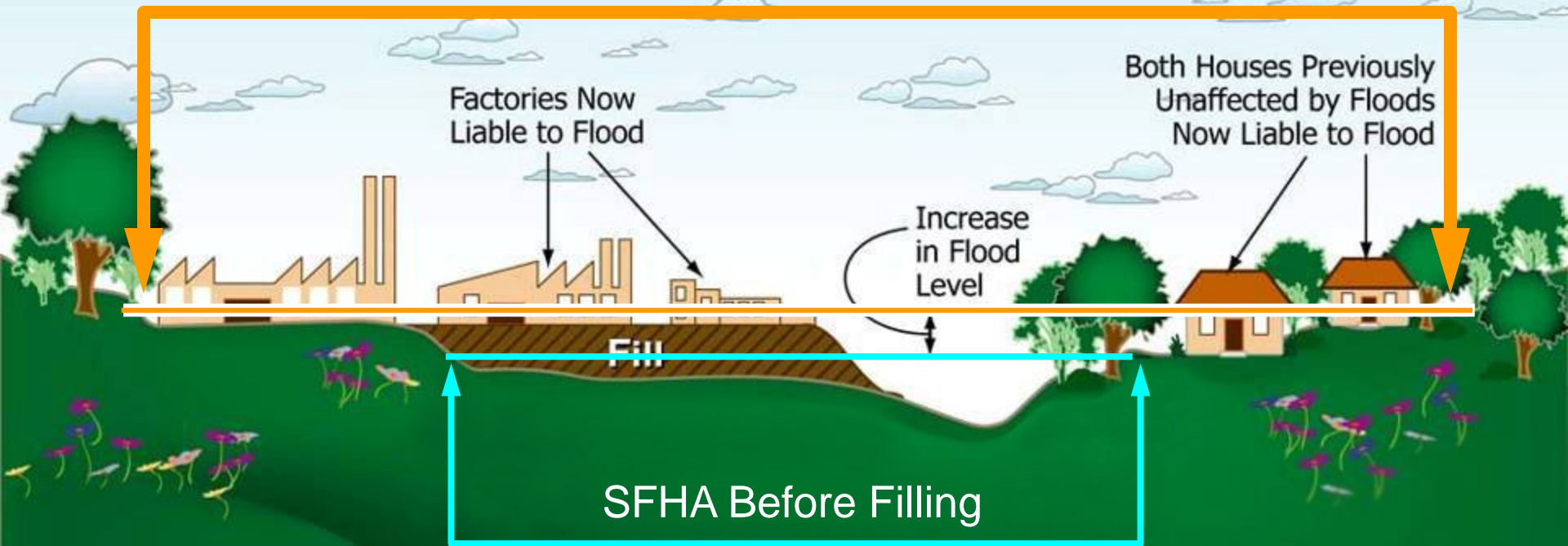
A landscape illustration showing a green floodplain with purple flowers. In the background, there are industrial buildings with smokestacks and residential houses with trees. A brown U-shaped arrow labeled 'Fill' points from the floodplain up to the industrial area, indicating the process of land reclamation.

Fill

However, if you allow fill in the floodplain,
you change the dynamics of the floodplain.

Today's Floodplain Is Not Necessarily Tomorrow's Floodplain

SFHA After Filling



If floodplains are filled, there is an increase in the land area needed to store and convey flood waters.
This means your home or business may be impacted.

What Is NAI?

No Adverse Impact (NAI) is an approach that ensures that the action of any community or property owner, public or private, **does not adversely impact the property and rights of others.**



What Is NAI?

The true strength of the No Adverse Impact approach is that it encourages local decision making to ensure that future development **impacts will be identified, considered on a watershed-wide basis and mitigated**



It is a truly comprehensive strategy for reducing flood losses and costs.

How to Implement NAI?

- Identify ALL the impacts of a proposed development
 - Drainage, Storage
 - Sediment, Erosion
 - Access
- Determine which properties will be impacted
- Notify impacted persons of the impacts of ANY proposed development



How to Implement NAI?

- Design or Redesign the project to avoid Adverse Impacts
- Require appropriate mitigation measures
 - Acceptable to the community
 - Acceptable to the affected persons



Results of Utilizing NAI Principle

- Potentially impacted persons are notified
- Impacted persons can voice concerns to community officials
- Impacted persons are not victimized by improper development



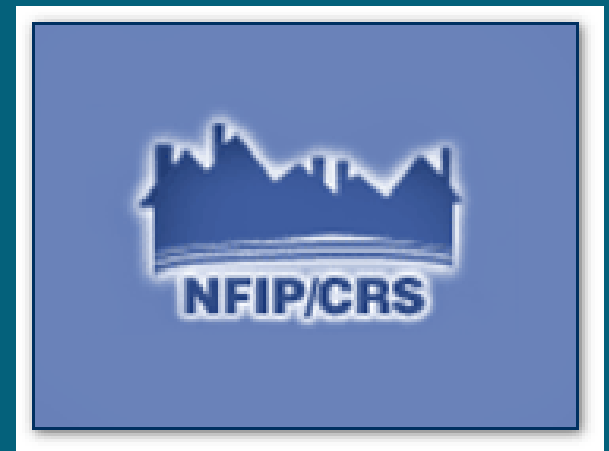
NAI Principle Leads to a Process

- Legally Acceptable
- Understandable
- Palatable to Community as a Whole
- Working around the Nation
- Non- Adversarial
 - Not Pro Development
 - Not Anti Development



NAI Floodplain Regulation

- Consistent with Sustainable Development
- Provides a Pragmatic Standard for Regulation
- Complements Good Wetland & Stormwater Regulation
- Works Equally on both a Local & Regional Basis
- Provides Points for FEMA Community Rating System (CRS) Program



NAI Roles

Federal

- Executive Orders & Policy
- Provide technical assistance

State

- Executive Orders
- Technical & planning assistance
- Adopt policies with incentives to encourage NAI



NAI Roles



Local government is the key...

- **Develop and adopt NAI community-based plans**
- **Adopt NAI strategies**
- **Educate citizens on the “Good Neighbor Policy”**

“Each locality controls the character of its disasters, forcing stakeholders to take responsibility for natural hazards and realize that decisions they make today will determine future losses. ...”

Dennis Mileti, *Disasters by Design*

NAI Benefits

- Will reduce future flood damages
- Will reduce future suffering
- Will protect the communities natural resources and amenities
- Will improve the quality of life
- Will provide for more sustainable growth within the community
- Will reduce the community's liability

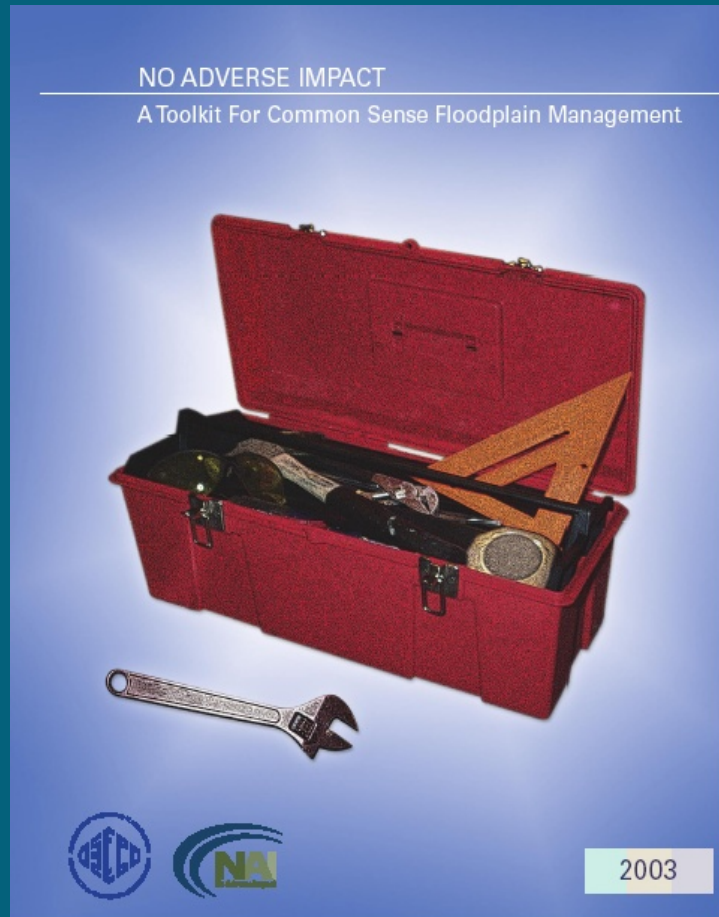


NAI Potential Benefits

- Improved water quality and reductions in non-point pollution impacts
- Green corridors which also serve as additional areas for floodwater storage
- Improved groundwater recharge
- Better bank stabilization and better erosion control
- Most NAI initiatives provide credits for the Community Rating System (CRS) if your community participates in the program



ASFPM Support



NAI Toolkit published in 2003 to assist local communities in implementing NAI principles.

CNAI Handbook added in 2006 to highlight coastal NAI principles.

NAI How-To Guides

NAI Toolkit

- Not a specific set of standards – A PRINCIPLE!
- Incorporate the concept into all community activities
- Many options for NAI
 - Use NAI in community plans
 - Adopt NAI regulatory or policy language
 - Revise programs to include NAI concepts
 - Create a master plan to address activities that impact flooding

NAI Strategies

- Hazard Identification (Mapping)
- Planning
- Regulations and Standards
- Mitigation Actions
- Infrastructure
- Emergency Services
- Education and Outreach

Community
Activities that can
Incorporate NAI



NAI Strategies

Building Blocks are grouped by:

- **Basic**
- **Better**
- **No Adverse Impact**

Communities are encouraged to go
beyond basic strategies

NAI Strategies

- Hazard Identification (Mapping)
- **Planning**
- Regulations and Standards
- Mitigation Actions
- Infrastructure
- Emergency Services
- Education and Outreach



Planning

BASIC

Planning & Implementation

Prepare & Develop Special & Comprehensive Plans
Ensure Plans are Adopted

BETTER

Risk Analysis and Strategy

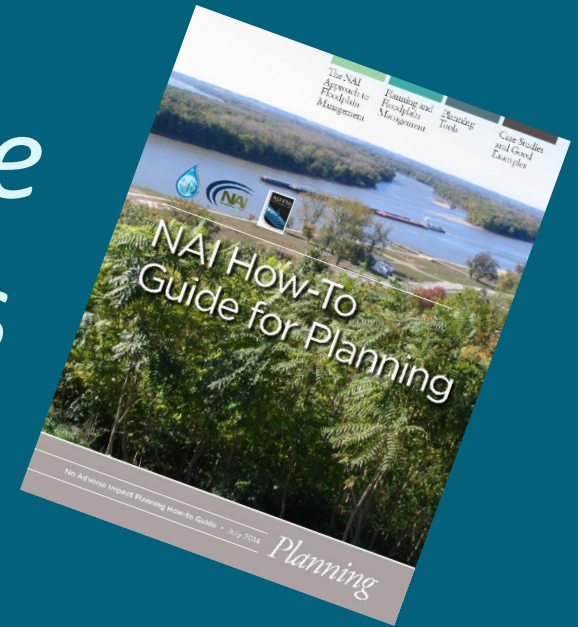
Identify Risk & Restrict Development

Planning

NAI

How-To Guide Planning Tools

- Comprehensive Planning
- Hazard Mitigation Planning
- Post-Disaster Planning
- Risk Assessment
- Public Involvement



Planning

Factors for Effective Planning

1. Use the best available science
2. Be future oriented
3. Involve the public
4. Coordinate with others
5. Review all the alternatives
6. Develop feasible recommendations
7. Aim high
8. Evaluate implementation

NAI



Planning

NAI

Think beyond emergency management:

- water supply availability and quality
- growth management in high-risk areas
- stormwater runoff and management

Consider your at-risk populations:

- Those with health & disabilities issues
- Those without transportation
- Those in high hazard areas



NAI Summary:

Every piece of property in your community has some element of flood risk

NAI is a principle that leads to a flood risk reduction process

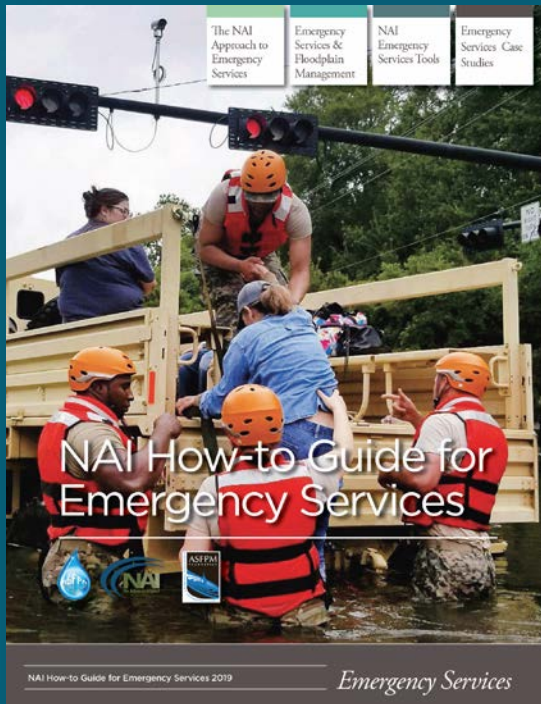
How-To Guides for Local Communities are great resources!



*NAI How to Guides, the NAI Toolkit and other valuable resources are available at www.floods.org – click on the NAI page

ASFPM Foundation Support

NAI How-to Guides



1. Planning (5 / 2015)
2. Education & Outreach (9 / 2015)
3. Mitigation (8 / 2016)
4. Infrastructure (8 / 2016)
5. Regulations & Development Standards (4 / 2017)
6. Hazard Identification & Floodplain Mapping (9 / 2017)
7. Emergency Services (5 / 2019)

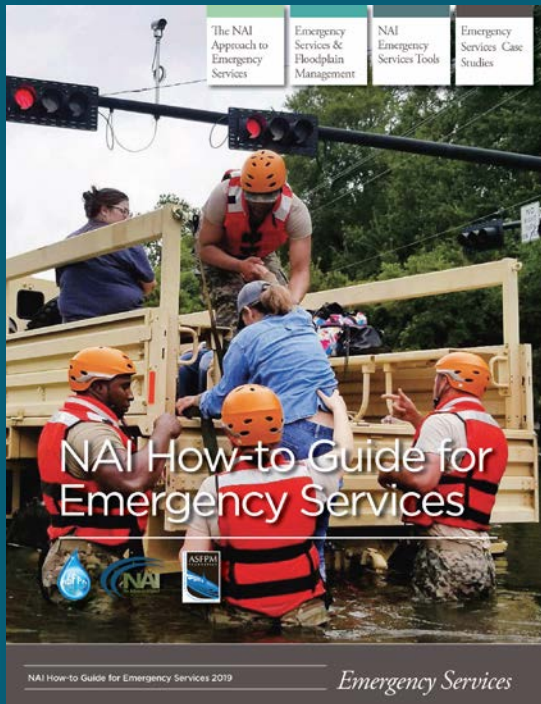
www.floods.org →



ASFPM Foundation Support

NAI How-to Guides

..... and coming soon
(once funding is approved)



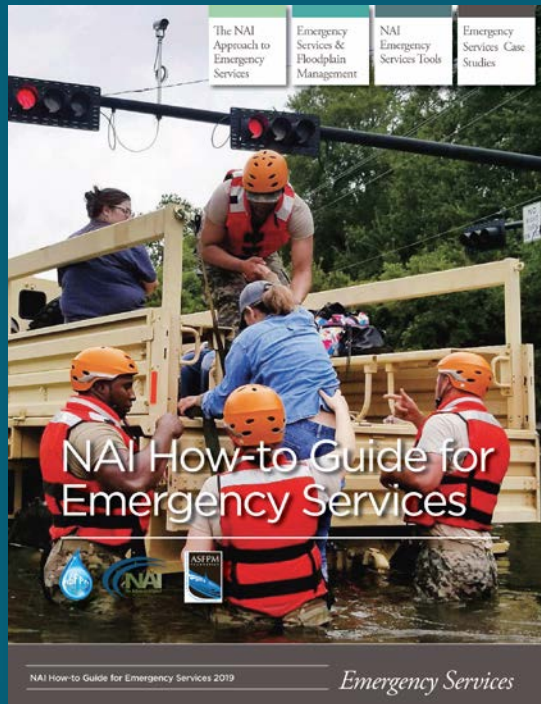
NAI Legal How-to Guide

www.floods.org →



ASFPM Foundation Support

NAI How-to Guides



..... AND an update
to the NAI Legal Resources
on the ASFPM website!!

(Your ASFPM Foundation
donation \$\$dollars\$\$ at work
for you!)

www.floods.org →



Planning How to Guide

Case Studies

1. Davenport, IA
2. Lewes, DE
3. Hillsborough County, FL
4. Conway, SC
5. Contra Costa County, CA



NAI



Planning In Your Local Community

NAI

Augusta GA



- Aggressive Buyout Program of Repetitively Flooded Structures
- Conservation Subdivision regulations in our CZO
- Flood Ordinance (we treat the ENTIRE property as FP!):
 - ✓ 3' Freeboard requirement
 - ✓ No fill can be brought in from offsite
 - ✓ No topo changes more than 2' +/-
 - ✓ Treat more than 1 ac in floodplain & lower floodplain fringe as floodway w/ floodway regs
- Stormwater Regulations – prohibit detention in FP

*“Alone we can do so little;
together we can do so
much.....”*

~ Helen Keller

Questions?

“Floods are Acts of Nature; But Flood Losses Are Largely Acts of Man”

Dr. Gilbert White





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