



USA: NO ADVERSE IMPACT: A NEW DIRECTION IN FLOODPLAIN MANAGEMENT STRATEGY

1. **Location of the study:** U.S.A.
2. **Author(s):** Larry Larson and Doug Plasencia¹
3. **Brief description of flood management practice**

Annual flood losses in the United States continue to worsen in spite of 75 years of federal flood control and 30 years of the National Flood Insurance Programme (NFIP). This trend is primarily due to federal policies that have encouraged at-risk development, provided for insufficient consideration of the impact of that development on other properties and on future flood and erosion potentials, justified flood control projects based on a benefit-cost ration that favours intensification of land use within the floodplain, and engendered an unhealthy reliance on federal resources by state and local governments.

A new approach to flood management called the “No Adverse Impact Floodplain” has been introduced as an alternative to traditional federal flood management policies. The new approach is one in which the action of one property owner or community does not adversely affect the flood risks for other properties or communities as measured by increased flood stages, increased flood velocity, increased flows or the increased potential for erosion and sedimentation, unless the impact is mitigated as provided for in a community or watershed-based plan. It promotes fairness, responsibility, community involvement and planning, sustainable development and local land use management – while not infringing on private property rights.

4. Key issues

The National Flood Insurance Programme (NFIP) encourages new development that can and does increase the level of future floods. However, the future flood level is not taken into consideration when the NFIP sets rules on where and how high new development should be located.

- For many years the sole focus of disaster assistance was rapid recovery with little concern for mitigation. As a result, communities received repaired/replaced infrastructure systems that made flood-prone areas attractive locations for development
- The “No Adverse Impact (NAI) Floodplain” approach ensures that future development activity both in and other of the floodplain will be part of a locally adopted plan.
- The NAI promotes local accountability for developing and implementing a comprehensive strategy and plan for development both inside and outside the floodplain.
- Utilizing the natural and beneficial functions of floodplains and watersheds is complementary with NAI policy.

5. Relevance to the concept of IFM

The study covers the following aspects of IFM to varying extents:

Water cycle as a whole

Aspect 6 - Effective use of floodwater by maximizing positive aspects of floods

¹ Association of State Flood Plain Managers (ASFPM)



Integration of land and water management

Aspect 2 - Land and water management

Aspect 3 - Laws and regulations for flood and water management

Aspect 12 - Multi-functional solutions (engineered wetlands, water quality treatment, flood alleviation)

Integrated river basin management approach to flood management

Best mix of strategies

Aspect 10 - Best mix of structural and non-structural measures

Participatory approach

Aspect 5 - Stakeholder involvement in decision-making

Aspect 9 – Effective linkage between existing institutions

Integrated hazards impact mitigation

Flood plain maps and zoning

Aspect 8 - Tools to support decision-making

6. Comments

- (i) Potential strong points of the case study
 - The importance of considering future flood levels resulting from today's development
 - Addressing increased flood stage, increased velocity, increased flow and increased erosion and sedimentation when planning projects
 - NAI as an approach to consensus building

- (iii) Potential for practices mentioned to be transferred/applied to other regions with geophysical and socio-economic characteristics)

The USA is unique, as the issue of people trying to avoid being sued for their actions seems to be a driving force even in the application of the NAI approach.