

Regional Stakeholder Workshop Summary

Recommendations for a National Levee Safety Program Hosted by the National Committee on Levee Safety Portland, Oregon

9 November 2010

I. Purpose of Workshop

The National Committee on Levee Safety (NCLS) held a one-day workshop to share information about its recommendations to Congress for a proposed National Levee Safety Program (NLSP). The workshop invited representatives from local and state agencies and elected officials who are engaged in levee safety issues. In addition, the workshop invited levee owners and operators, planners, emergency managers, local and regional business interests, environmental interests, economic development interests, public health and safety interests. The objectives of the NCLS workshop were to:

- Learn more about the NCLS and their recommendations for a NLSP;
- Discuss the implications of adopting the NCLS recommendations for local and state governments and other stakeholders; and
- Provide feedback to the NCLS on the recommendations.

Congress created the NCLS to develop recommendations for a NLSP, including a strategic plan for implementation of the program. The NCLS adopted the vision of an involved public and reliable levee systems working as part of an integrated approach to protect people and property from floods, and has been working toward this goal since October 2008. The NCLS recommendations for a NLSP are based on three central concepts:

1. Leadership via a National Levee Safety Commission that provides for state programs, national technical standards, risk communication, and coordination of environmental and safety concerns;
2. Strong levee safety programs within all states that, in turn, provides oversight and critical levee safety processes; and
3. A foundation of well-aligned federal agency programs and processes.

II. Opening Presentations

A. Dave Hendricks, Deputy Director, Multnomah County Drainage District #1

Mr. Dave Hendricks, Deputy Director, Multnomah County Drainage District #1, provided opening remarks and welcomed workshop participants to city of Portland, Oregon.

The recognition of levees as a critical infrastructure is a long time coming. For 21 years, Multnomah County has managed levees in the drainage district with little to no coordination or communication with state, local, city governments or elected officials. Mr. Hendricks emphasized that levees are not just the responsibility of levee owner or of the United States Army Corps of Engineers (USACE); they are all our responsibility. It is all our responsibility to ensure these levees are safe.

III. Introduction and Update on NCLS Activities – Eric Halpin, Les Harder and Dusty Williams, NCLS Members

Members of the NCLS provided an overview of the history of levee development in the U.S. including the factors that led to the need for a NLSP, the lack of awareness about the risks that levees pose, the charge and membership of the NCLS, and key points included in the 20 recommendations further described in the report, *Recommendations for a National Levee Safety Program: A Report to Congress from the National Committee on Levee Safety, January 15, 2009*. NCLS members indicated that copies of the report, information papers, presentations from the workshop, and other information about the NCLS can be found on the NCLS website, www.leveesafety.org.

Following a brief question and answer session and a networking lunch, participants were asked choose three out of six topics for 45-minute, breakout group discussions. These six tables represented clusters of the key recommendations (20 in total) made by the NCLS. NCLS members at each of the six breakout tables provided a brief introduction to the recommended elements of a NLSP and moderated an open-ended conversation with workshop participants, answering questions, soliciting feedback, and providing additional information. Following the conversations, members of the NCLS shared some of the major themes discussed at the tables.

A summary of the comments and discussion are included below and are organized in the following categories from the breakout tables and one overall category. Comments are organized by topic regardless of the breakout session in which the comment was made.

- A. Create a NLSP and state programs
- B. Require risk-based flood insurance in leveed areas
- C. Federally fund a national levee inventory and the National Levee Database (NLD)
- D. Harmonize environmental protection and levee safety
- E. Create a National Levee Rehabilitation, Improvement, and Flood Mitigation Fund
- F. Address public- and private-sector liability concerns

IV. Comments, Questions and Suggestions Related to the Recommendations for a National Levee Safety Program

A. Create a National Levee Safety Program and State Programs

There was no consensus across the breakout discussions regarding where the NLSP should be housed. These disparate views were reflected in discussions held among the NCLS and are reflected in the recommendations. Some participants suggested that USACE would be the best federal agency to house a NLSP while others felt that USACE would not be appropriate because it would be in the awkward role for the Agency to both house the NLSP and be subject to it. There also was support for having an independent NLSP and embedding it in an existing agency. In a related comment, participants were concerned that the proposed Advisory Board could not have a meaningful, independent role if it was embedded in the USACE. One participant felt that a NLSP generally was too short-sighted and suggested that there be a broad based, National Flood Risk Management Program. Participants also expressed mixed perspectives on the relationships between levee safety and dam safety programs. While some felt

that dam safety requirements are very different from levee safety requirements and should not be combined, others felt that combining dam and levee safety programs could be beneficial, if resources are provided for both.

- If the NLSP is established as a separate entity, functions currently performed elsewhere should be taken out of their current homes and merged into this new agency.
- The NLSP should not be regulatory in nature, but rather it should facilitate adoption of levee safety practice. A key role for the NLSP should be to establish training and educational programs related to levee safety and operation
- Although the program should provide national oversight, it should not preclude local responsibility for implementation.
- Under a NLSP, there should be minimum standards for state programs, including non-structural measures, but states need to have the flexibility to account for local conditions.
- State programs should focus on evacuation programs, inspections, environmental impacts, and building codes.
- All communities should adopt a risk-based level of protection, conduct inspections, and inventory their levees.
- Liability issues need to be addressed before states are likely to take on a NLSP.
- The NLSP should include disincentives for investment in floodplains.

B. Shared Risk / Shared Responsibility: Requirements for risk-based flood insurance and addressing concerns about liability

In general, there was support for the concept of required risk-based flood insurance. However, there were also several concerns, such as:

- What exactly will the rates be?
- How will affordability and subsidies be addressed?
- How will it address consequences on property values and future economic development?
- Can the ceiling be raised so that business owners especially can meaningfully insure their property?
- How will insurance pools be structured? Would my community be paying for another community's disaster? How would you determine the rates for risk-based policies if you currently don't know the risk?
- What should be done about perceptions of low risk due to levees performing well in previous floods?
- A few participants expressed concerns about the fact that having a mandatory insurance requirement could be a significant disincentive for businesses to stay/locate in an area where insurance is required.

Participants suggested that, in the implementation of the NLSP, a portion of the premiums collected should be made available to local levee districts to further minimize their risks. There was concern expressed about the approach of singling out people that live behind levees to require mandatory insurance, because most of the floods occur outside Special Flood Hazard Areas (SFHAs).

- The insurance rates should be risk based and should be introduced gradually. Phasing it in over five or ten years will ease the sticker shock for communities with inadequate levees. At some

point, the federal government isn't going to have the money to subsidize this; phasing into paying for true risk is a good start.

- Requiring insurance by individual homeowners seems to be the most inefficient means of covering a community. We need to have somebody other than the individual buying these policies. There are 881 counties in the US that have levees. The counties should be allowed to buy the insurance, paid for by county taxes, bringing it down from 5.6 million individual policies to 881 county policies. That would spread the risk across the county.
- If the insurance recommendation can be put in the context of individual responsibility, it may be an easier sell. For example, if people feel like they are paying to protect their families and their investments; it may be more effective than if they think they are paying for New Orleans.

C. Federally Fund a National Levee Inventory

Many questions need to be answered before an inventory can be conducted. These include:

- What structures would be considered "levees" for purposes of the database?
- When will states be allowed to put in data?
- What data elements will be required or optional?
- Will the software or database will be available to the public?

Concerns were raised about the use of the data once collected and whether this would be an unfunded mandate.

- The NLSP should include guidelines, a template, and funding resources so that local communities could conduct the inventory themselves.
- If local risks are going to be exposed through this process, this won't happen overnight. Communities will have concerns about liability, new insurance requirements, and negative impacts on housing values and economic development. The NLSP should include incentives to overcome concerns that increasing information and knowledge about risk will negatively impact property values and economic development potential. For example, credits or reduced insurance rates for participation, participation as a requirement to receive federal funding for rehabilitation or improvement, a break on cost-sharing for participating in the inventory, etc.
- Some participants suggested that an inventory of several major levees could be sufficient and involve a lot less data. The NLSP could then prioritize where additional information is needed.
- A participant proposed that, if a community provides information about their levee, they shouldn't be liable for it.
- It would be helpful to identify opportunities for environmental enhancement – areas where levee removal could provide flood attenuation capacity. This information could be used to assist communities in illustrating and communicating risk.

D. Harmonize Environmental Protection and Levee Safety

- The Endangered Species Act (ESA) is not negotiable. This needs to be one of the core issues addressed through the NLSP.
- We need a more holistic approach to addressing the connection between the environment and public safety. Levees don't serve a single purpose and there are multiple factors that are integral to a solution, including risk, ecology, and economics. If you reframe the idea of levees in this multi-purpose context, you can work toward something new.
- The current process is broken, and there is no federal lead to help fix it. There needs to be leadership – at any level – to bring all the parties to the table. At some point, it may be

necessary to have some kind of pressure (e.g., mandate by fed government, court, governor) to break the gridlock between agencies and interests.

- There need to be parallel environmental approaches that ensure that whatever happens under the NLSP is supported by other policies and processes (e.g., with the USACE PL 84-99 process).
- Participants felt that climate change, sustainability, and ecosystem services should be more prominent in the NCLS's recommendations.
- Sediment issues also need to be a part of the environmental discussion. Levees are losing their effectiveness due to increased sedimentation. In Canada, sediment removal contributed to improvements in levees but also increased habitat – funding should be allowed to be used for this.
- Any risk analysis approach that is developed needs to recognize that both environmental and public safety is important.
- Some of the challenge with this topic may be the way the issue is framed. To move the conversation, the NCLS should think about reframing the problem statement to “how do we achieve multiple uses and economic development?” and talk about “partners” in the process of solving this problem.
- Many of the issues are regional in nature, requiring a broader perspective than levee segment by levee segment. The NLSP should also look broadly at ecosystem services and broaden economic incentives and communities (that are often divided into small areas) need to cooperate and work at a larger scale.
- The NLSP should include incentives for strong environmental efforts, possibly to promote more rehabilitation or other funding.
- Working groups at the local level are able to streamline and incorporate environmental concerns and other issues from the beginning; federal agencies should take note.
- The consultation and PL 84-99 (Flood Control and Coastal Emergency Act) repairs need to be streamlined.
- The environmental concerns related to new and existing infrastructure are different.
- It was suggested that low-benefit levees can become mitigation banks.
- Participants had questions regarding the proposed Standing Committee on Environment that would be part of the new NLSP: What authority would the standing committee have?
- How would the NLSP or the Standing Committee compel alignment?

Some key questions the NLSP should be considering:

- How can we provide public safety with ecosystem services?
- Where do goals point in the same direction, improving both ecosystem services and public safety?
- How can you do a reasonable assessment of the risk to optimize flood and environmental risk?
- What are you trying to protect?
- What do you do with and after you establish a levee regarding future development?
- Is vegetation helpful or harmful to levee integrity – is “it depends” always the answer?
- What level of risk, to public safety and to the environment, are we willing to accept?
- Not all levees are created equally – maybe some should not be repaired, but should be removed or be allowed to return to natural habitat.
- Environmental issues have been blocking repair of some levees since 2006. People behind the levee are being put at risk because of this lack of action. In addition, dike districts should not be held liable coming into the flood season when needed repairs are blocked by environmental interests or the inability of federal agencies to work together.

- A big problem is that levees are too close to the river – and there isn't always real estate available for set-back levees.

E. Create a National Levee Rehabilitation, Improvement, and Flood Mitigation Fund

- Consider a revolving loan fund in addition to or instead of a cost-shared grant. Small levee districts will have trouble making the local match.
- Participants expressed concern about how small communities compete against high-consequence areas. They suggested that perhaps value to the community needs to be included, or the program needs to be broken into tiers, having funding for small communities as well as large. The former should not be shut out completely.
- Participants recommended keeping politics out of the funding program – keeping the program pure and separate from Congressional interests. The way to do that is to use real information, real risk and real estimates to make the justification for prioritization.
- Educate Congress about risk. This will build support for the funding that is needed to mitigate it.
- Economic development and future growth is a real need in some communities and should be considered in decision making regarding funding.
- Fund agricultural levees so they remain as a safety valve.
- Consider a separate pool of money for environmental rehabilitation or levee removal projects.
- The value in the risk equation (what is at risk) needs to be more than a strict economic value.

V. Wrap-up

Mr. Halpin thanked workshop attendees for their participation and insightful comments and acknowledged the dynamic input the NCLS received, particularly, comments regarding the connection between environmental protection and public safety issues in levee management. Mr. Halpin explained that workshop input from participants will be evaluated and will help to inform the work of the NCLS. Dialogue with stakeholders and partners will continue through 2011.

NCLS members articulated the 12 Report recommendations whose implementation will require new authorities and will need new appropriations. NCLS non-federal members have crafted a legislative framework supportive of these 12 recommendations and delivered it to Congressional staff. The initial set of critical activities to pursue improving levee safety nationwide include: (1) Establishing a NLSP; (2) Completing an inventory of all the nation's levees; and, (3) assisting Congress in understanding and addressing liability concerns.

Where possible, NCLS is working on common levee safety activities under existing authorities within FEMA and USACE. NCLS members also are working to define the costs and benefits of a NLSP, considering refinements of the recommendations, and building smart implementation steps around the recommendations.

For more information, or to sign up for the electronic mailing list for updates from the NCLS, please visit the NCLS website www.leveesafety.org.

Appendix A: Portland Oregon Regional Stakeholder Workshop Attendees

Ira Artz, TetraTech
Sherry Bean, Consolidated Diking Improvement District No. 1
Todd Bennett, Northwest Hydraulic Consultants
Surya Bhamidipaty, U.S. Army Corps of Engineers, Northwestern Division
Kimberly Blake Pincheira, Office of U.S. Senator Maria Cantwell
Steve Bleifuhs, King County Department of Natural Resources & Parks
Kris Buelow, Snake River Salmon Recovery Board
Ken Cachelin, Consolidated Diking Improvement District No. 1
Lisa Caldwell, Columbia County Emergency Management
Dave Carlton, PBS&J
Gar Carothers, HDR Inc.
Jerry Christensen, U.S. Army Corps of Engineers
Larry Connolly, Port of Camas-Washougal
Paula Cooper, Whatcom County Public Works
Tim Couch, Sauvie Island Drainage Improvement District
Becca Croft, Public Works Management, Inc.
Kurt Danison, Highland Associates
Chris Davies, City of Lewiston, Idaho
Brian Dempsey, City of Burlington, WA
Todd Dugdale, Columbia County Director of Land Development Services
Bob Eaton, Multnomah County Drainage District #1
James Erzen, U.S. Army Corps of Engineers
Steve Fink, U.S. Army Corps of Engineers
Dennis Fischer, U.S. Army Corps of Engineers
Jerry Franklin, Shorelands and Environmental Assistance Program Washington State Department of Ecology
Bill Fullerton, TetraTech
Donald Gauthier, King County Department of Development and Environmental Services
Randy Ghezzi, City of Pocatello
Yvonne Gibbons, U.S. Army Corps of Engineers
Matthew Gray, HDR Inc.
Bevan Griffiths-Sattenspiel, River Network
Tom Grindeland, WEST Consultants, Inc.
Daryl Hamburg, Skagit Dike District 17
Dave Hendricks, Multnomah County Drainage District # 1
Glen Hess, U.S. Geological Survey Oregon Water Science Center
Dell Hillger, Cowlitz County Public Works
Jeff Johnson, Northwest Hydraulic Consultants
Dick Jones, Columbia County Commissioner
Terry Keenhan, Yakima County Public Services
Jim Kennedy,
Robert Kompel, City of Glasgow, MT, Department of Public Works
Steve Landino, NOAA / Washington State Habitat Office
Greg Lanning, City of Pocatello
Marc Liverman, National Marine Fisheries Service
Jerry Louthain, HDR Inc.
Lance Ludwig, Cowlitz County Public Works
Jim Miller, City of Omak, Public Works
Mark Ohlstrom, U.S. Army Corps of Engineers, Seattle District
Bill Peters, Columbia County, WA Emergency Management
Shane Phelps, Parametrix
Page Phillips, Office of Senator Patty Murray (WA)
Matt Pietrusiewicz, Yakima County Public Services
Mike Poulson, Office of Congresswoman Cathy McMorris Rodgers - WA-05
Jeff Pray, King County Department of Development and Environmental Services
Rick Riker, Ch2M Hill
David Ripp, Port of Camas-Washougal
Tom Sharp, Pierce County, WA
Richard Shroedel, Pierce County, WA
John R. Shultz, Shultz Law Offices / Dike Districts 1 and 12 in Skagit County, WA
John A. Shultz, Shultz Law Offices / Dike Districts 1 and 12 in Skagit County, WA
Doug Singer, City of Eugene, Public Works Engineering
Harold Smelt, Pierce County, WA Emergency Management
John Smith, City of Lewiston, Idaho

Patty Snow, Oregon Department of Fish and
Wildlife
Terance Song, HNTB Corporation
Ken Stone, Cowlitz County Public Works
Judi Strayer, Consolidated Diking Improvement
District No. 1
Shawn Stubbers, City of Lewiston, Idaho
Brett Swift, American Rivers
Ryan Turner, City of Eugene, OR
Glenn Vanselow, Pacific Northwest Waterways
Association

Tim Warren, Multnomah County Drainage
District # 1
Ed Wegner, Transportation and Development
Services, Clatsop County, OR
Geoff Wenker, Scappoose Drainage
Improvement District
Eric Wold, City of Eugene, OR
Gary Wolff, Otak
Byron Woltersdorf, Multnomah County
Drainage District # 1

Members of the National Committee on Levee Safety

Eric Halpin, NCLS Vice Chair, USACE
Susan Gilson, Private Sector Representative
Les Harder, Private Sector Representative
Karin Jacoby, Local/Regional Representative
Mike Stankiewicz, State Representative
Bob Turner, State Representative

Dusty Williams, Local/Regional Representative
Terry Zien, NCLS (support)
Linda Manning, Council Oak (support)
Liz Rettenmaier, Council Oak (support)
Nick Brubaker, Council Oak (support)

Appendix B: Breakout Group Summaries

The discussions held at the breakout tables provided an opportunity for workshop participant questions to be answered and for NCLS recommendations to be clarified. The NCLS solicited feedback from participants on the recommendations. These ideas, and others received during other regional stakeholder workshops and interactions across the country will be used to inform the NCLS as they shape their implementation strategy for establishing a NLSP.

Create a National Levee Safety Program and State Programs

No consensus was reached on the governance of a NLSP; specifically whether the program should be established within an independent commission or embedded within an Agency. Some participants suggested that USACE would be the best federal agency to house a NLSP, though this was likened to the fox watching the hen house.

- The advisory board cannot have a meaningful, independent role and be embedded in the USACE.
- Dam and levee safety alignment – there are some inherent conflicts in combining them.
- Dam safety requirements are very different from levee safety standards; national programs should not be combined. Combining dam safety and levee safety could be a good thing; but most provide necessary resources for both. Most dams have revenue sources outside of taxes, levees don't.
- Federal oversight should not preclude local responsibility.
- There should be disincentives for investment in floodplains.
- There should be minimum standards for state programs – big push on nonstructural
- measures.
- State programs should focus on evacuation programs, inspections, environmental impacts, building codes.
- All communities should adopt risk-based level of protection, an inspection program, and develop an inventory.
- One group does not support establishment of a National Levee Safety Commission; it should be part of a broader flood risk management approach.
- States need to be flexible to account for local conditions.
- The NLSP should not be regulatory, rather it should be facilitating.
- Establish educational and training programs on levee safety & operation.
- The liability issues need to be addressed before states are likely to take on a NLSP.
- It's a bad idea to have funding go through one agency and levee safety program implementation through another.
- What happens if new standards require a levee owner to make changes after they have just completed a rehab project?
- Small communities are a concern. Representative Wu (OR) introduced HR 5917 in 2010. The Rural Community Flood Protection Act will:
 - Change current federal policy to allow USACE to provide assistance to communities seeking levee certification.
 - Establish a non-federal cost share for levee certification of 35 percent. However, the bill also lowers this cost share to zero for communities under 10,000 people and for volunteer-run dike districts.

Shared Risk / Shared Responsibility: Requirements for risk-based flood insurance and addressing liability concerns

- What is the correlation between money spent on the levee and its condition and the rate they pay for their insurance – how are the actuarial data tables from which you assess your risk and your costs created?
- The USACE built a levee in 1971, maintained by the city, which has weathered two major floods. The people behind that will want to know why they should buy insurance. In our pool of cities, we have a pool of health insurance. One major surgery impacts everybody's premiums; there is a constant desire to implement best practices to reduce the risks in that pool. My constituents would take umbrage to being put in the same risk pool as New Orleans; how do we deal with that? This is a very contentious issue. We are basically asking everybody to participate in the same risk pool.
- In the implementation, if a portion of the premiums collected were made available to local levee districts to further minimize their risks and minimize their risk. You will need some of that set-aside to pay out policies, but use some for improvements.
- What's the insurance company's stake in this? If I'm an underwriter, I would love this. What's to stop the companies from just raising and raising the premiums?
- Why are you singling out people that live behind levees to apply this mandatory insurance? Most of the floods occur outside SFHAs.
- If we are thrown into this mandatory flood insurance, some of our consultants have told us we would have 100 million dollars a year going out of our economy and going somewhere else to assist people who haven't maintained their levees.
- If you have some programs in the infant stage, how can we start talking about mandatory insurance until we know what that risk is?
- Risk-based is what you should do. You need to ease into, too. If you have a poor levee and their rate is going to skyrocket, there is going to be a big sticker-shock. Phasing it in over five or ten years will ease that. At some point, the federal government isn't going to have the money to subsidize this; phasing into paying for true risk is a good start.
- I have flood insurance now, but it's not mandatory. This is by far the most inefficient means of covering a community. We need to have somebody other than the individual buying these policies. There are 881 counties in the US that have levees. The counties should be allowed to buy the insurance, paid for by county taxes, bringing it down from 5.6 million individual policies to 881 county policies. That would spread the risk across the county and the administration costs. And, maybe even a private-sector insurance company would be interested.
- If this recommendation can be put in the context of individual responsibility – you aren't paying for New Orleans, you are protecting your investment and your family – that could be a good sell.
- Some of the larger firms still take on the work, despite the risk. But, for many smaller firms, even the risk of a lawsuit could bankrupt them.
- What would happen if something did go wrong with the levee? We tried to hire a private engineer to gather documentation from FEMA and the USACE. To do the certification, they thought we needed to drill every 100 feet, \$1.2M. They took that requirement away, but we are still facing all these requirements. How can you ever say a dike built in the 40s meets today's standards? How can you make some reasonable assessment without investing millions of dollars in the studies?
- What would the consequences be of not getting insurance, as a homeowner?

- In the communities I work with, we're seeing mortgage companies requiring flood insurance, even in areas outside special flood hazard areas.
- If a company wanted to locate in our town, isn't that a great economic disincentive for driving business away from our community which sits between two rivers?
- We have 500-year protection, I worry that mandatory flood insurance would raise a lot of issues from economic development councils.
- East of the mountains, we are paying the federal government to bail people out. People choose to live in a risk-prone area. Why should the federal government bail them out?
- If there is going to be a requirement that everybody has it, is there a way to raise the ceiling so that you can meaningfully insure your property (esp. commercial).
- A lot of this is on the homeowner. Did you discuss incentives or disincentives for communities to not allow more development in a deep floodplain, or a new levee to not increase the risk?
- In general, a fair amount of support for the concept of required-risk-based flood insurance, but several concerns: what exactly will the rates be; affordability / subsidies; consequences on property values and future economic development.
- Suggestion for counties buying the insurance rather than individual homeowners; and the suggestion that is a bad idea.

Create a National Levee Rehabilitation, Improvement, and Flood Mitigation Fund

- Rather than cost-shared grant, maybe make it a low-interest loan.
- How do small communities compete against high consequence areas? Maybe value to the community needs to be included or break it into tiers and have funding for small communities as well as large. "Keep politics out of it." Have it be a pure program, not based on Congressional favors. The way to do that is to use real information, real risk, and real estimates to make the justification for prioritization.
- Educate Congress as to risk; this will build support for the funding to mitigate it.
- Economic development and future growth is a need in some communities and should be considered in the decisions regarding funding.
- Fund agricultural levees so they remain as a safety valve.
- Two tiers of funding: one for large urban areas, one for small agricultural areas. The latter should not be shut out completely.
- Rehabilitation is already addressed by other federal agencies; concentrate on improvement.
- Consider a revolving loan fund in addition to or instead of a cost-shared grant. Small levee districts will have trouble making the local match.
- Consider a separate pool of money for environmental rehabilitation or levee removal projects. The value in the risk equation (what is at risk? needs to be more than a strict economic value.

Federally Fund a National Levee Inventory

- Discussion focused on the 100,000 miles of levees in the graph. We had a lot of discussion on "what is a levee" with respect to the database.
- "Data is always a good thing if you use it properly." Big brother concerns; why is the federal government looking over communities' shoulders. Concern this would be another unfunded mandate.

- To get this to work, local government needs to do the inventory – but be paid for it.
- If local risks are going to be exposed, this won't happen overnight. Concerns about liabilities, new insurance.
- Breadth and depth of current inventory – suggestion for local levees get a lot less data (location, leveed area), and then prioritize where additional information is needed.
- What information is the USACE collecting now; which of that data is the most important – if local communities wanted to provide information, USACE should share their template.
- Many questions remain; including what structures would be considered “levees” for purposes of the database, when states will be allowed to put in data, what data elements will be required or optional, if the software or database will be available to the public. Once it is known and understood what risk people have, there needs to be a way to alleviate that risk.
- Consequences of levee failure should be broad reaching: the impact area, the potential impact. What do you want most from the NLD?
 - Opportunities to do levee setbacks
 - Ability to gather field data with a two-person survey crew.
 - Data available to use for accreditation for the NFIP.
- Collection of data and input into the NLD cannot be an unfunded mandate.
- Even if all levees (however they are defined) are included in the database, you don't necessarily need to evaluate all of them.
- Create guidelines and funding sources so that local communities could conduct the inventory themselves.
- Identify incentives to create this information to overcome concerns that increasing information and knowledge about risk will negatively impact property values and economic development potential. For example, credits or reduced insurance rates for participation, participation as a requirement to get federal funding for rehabilitation or improvement, a break on cost-sharing for participating in the inventory.
- What are the legal issues and/or limits of mandating that all levees are inventoried?
- Would like to identify opportunities for environmental enhancement, identify areas where levee removal could provide flood attenuation capacity, and be able to use the information to assist communities in illustrating and communicating risk.
- Concern about liability – is there a way that if we put a levee in the database we will not be liable for it.

Harmonize Environmental Protection and Levee Safety

- Clearly we got the feedback this needs to be part of the NLSP as one of the core issues.
- We need a holistic approach; levees are not just a single purpose – multiple factors including risk, ecological, and economic.
- Current process is broken, with no federal lead.
- There needs to be parallel environmental approaches, e.g., with the USACE PL 84-99 process.
- Climate change isn't really addressed strongly in the report, and that needs to be brought out.
- Sediment issues need to be a part of the discussion.
- Risk analysis approach that recognizes environmental and public safety is important.
- Stop framing public safety and environment in juxtaposition; frame it differently. The problem statement can be “achieving multiple uses and economic development” and talk about “partners.”

- Many of the issues are regional in nature, requiring a broader perspective than levee segment by levee segment.
- Consider inventive for strong environmental efforts, possibly more rehabilitation or other funding. Working groups at the local level are able to streamline and incorporate environmental concerns and
- Other issues from the beginning. Federal agencies should take note – consultation and PL 84-99 repairs need to be streamlined.
- There is a difference between new and existing infrastructure.
- Low benefit levees can become mitigation banks.
- New mitigation obligations can be complex and time intensive.
- Laws restricting real estate should be at least the state level in order to be effective, but mitigation funds should be national or at least regional (watershed councils?) rather than run by the state.
- What authority would the standing committee have? How would the NLSP or the standing committee compel alignment?
- Unless environmental issues get solved, nothing will get solved. In the City of Portland, monthly meetings are held on projects, streamlining the process: habitat enhancement needs are met, permitting time is reduced, and ideas get floated across early on.
- Hope for more interdisciplinary approach to information about vegetation on levees and recognition of the differences between massive rivers and small watersheds/small streams.
- Need to look at a bigger scale, consider ecosystem services, and broaden economic incentives.
- How can issues of sustainability, ecosystem services be reflected, front and center, in the NCLS's recommendations?
- Some key questions included:
 - How can we provide public safety with ecosystem services?
 - Where do goals point in the same direction, improving both ecosystem services and public safety?
 - How can you do a reasonable assessment of the risk to optimize flood vs. environmental risk?
 - What are you trying to protect?
 - What do you do with and after you establish a levee regarding future development?
 - Is vegetation helpful or harmful to levee integrity – is “it depends” always the answer?
 - What level of risk, to public safety and to the environment, are we willing to accept?
- Environmental interests must be part of the program
- Integrate incentives for environmental restoration / mitigation with levee rehab/improvement.
- Not all levees are created equally – maybe some should not be repaired, but should be removed or let return to natural habitat
- USACE can calculate environmental restoration into the cost and fun environmental restoration/mitigation via PL 84-99.
- Environmental issues have been blocking repair of some levees since 2006. People behind the levee are being put at risk by environmental concerns.
- Section 7 Consultation as required by ESA needs to be streamlined; the timeline is too long and puts people (and environment) at risk.
- Dike districts should not be held liable coming into the flood season when needed repairs are blocked by environmental interests or the inability of federal agencies to work together
- Communities are too divided and too small; they need to cooperate at a larger scale

- Communities get differing opinions from different parts of USACE – very difficult to navigate.
- A big problem is that levees are too close to the river – and there isn't always real estate available for set back levees
- Levees are losing the ability to protect due to sedimentation. In Canada, sediment removal led to increased habitat – funding should be allowed to be used for this.
- Single-use levees are a limited way of looking at a multi-purpose river. If you reframe the idea of levees, you can work toward something new.
- There needs to be leadership – at any level – in order to bring all the parties to the table. At some point, it may be necessary to have some kind of pressure (e.g., mandate by fed government, court, governor) to break the gridlock between agencies / interests.