

Floodplain Management and the  
Endangered Species Act  
A Model Ordinance

April, 2011



Region 10

# Floodplains and Fish – Endangered Species Act and the National Flood Insurance Program

Read Stapleton, AICP  
BergerABAM

Steve Morasch  
Schwabe, Williamson, & Wyatt

Peter Livingston  
Schwabe, Williamson, & Wyatt

BergerABAM

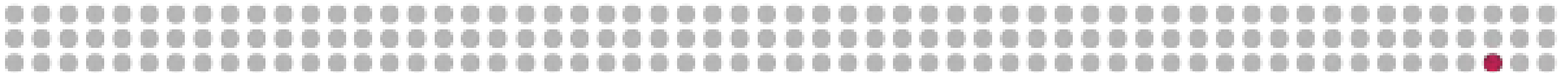
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# Introduction

- September 22 – 122 communities in the Puget Sound region were required to demonstrate Endangered Species Act (ESA) compliance with the issuance of floodplain development permits.
- New requirements fundamentally change the implementation of the National Flood Insurance Program (NFIP) in the Puget Sound region.
- These changes ultimately will affect floodplain development requirements across the Northwest.



# Topics Covered

- Brief history of the NFIP
- ESA (Law and Process)
- *National Wildlife Federation v. FEMA*<sup>1</sup>
- Compliance process in the Puget Sound region
- Impacts for the rest of Washington State
- Impacts in Oregon

<sup>1</sup>. 345 F. Supp 2d 1151 (W.D. Wash.2004)







# National Flood Insurance Program

Created by the National Flood Insurance Act of 1968 for the following purposes:

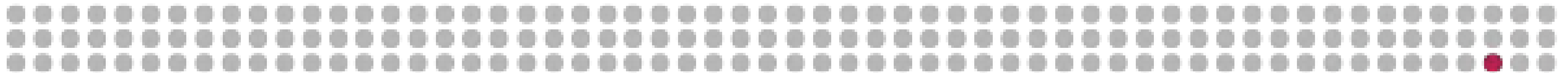
1. **Risk Identification / Assessment:** Map floodprone areas in communities that join the NFIP.
2. **Risk Mitigation:** Adopt a set of minimum floodplain management regulations for communities to participate in the NFIP.
3. **Insurance:** Make federally supported flood insurance available in communities that have joined the program.



# National Flood Insurance Program

**The goals of the program were to mitigate flood losses by:**

- Ensuring new structures would be built to the standards of the NFIP
- Allowing for the attrition of high risk structures







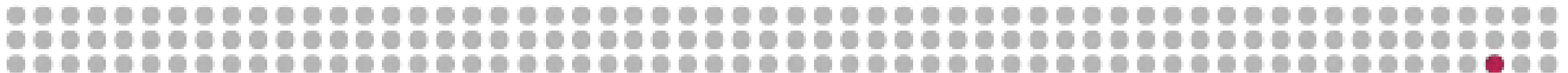
# National Flood Insurance Program

## **The NFIP is a voluntary program:**

- Insurance is available only in communities that adopt and enforce an NFIP-compliant floodplain ordinance

*However,*

- Mortgages that are federally insured or from regulated banks are unavailable for properties in the Special Flood Hazard Area (SFHA) in non-participating communities
- Prohibition of federal loans and grants for construction in the SFHA in non-participating communities
- Limitations on disaster assistance for non-participating communities





# National Flood Insurance Program

**Use of flood insurance issued under the NFIP has grown:**

- 1978 – Roughly \$30 billion in floodplain insurance coverage nationwide
- 2008 – Approximately \$1.2 trillion in floodplain insurance coverage





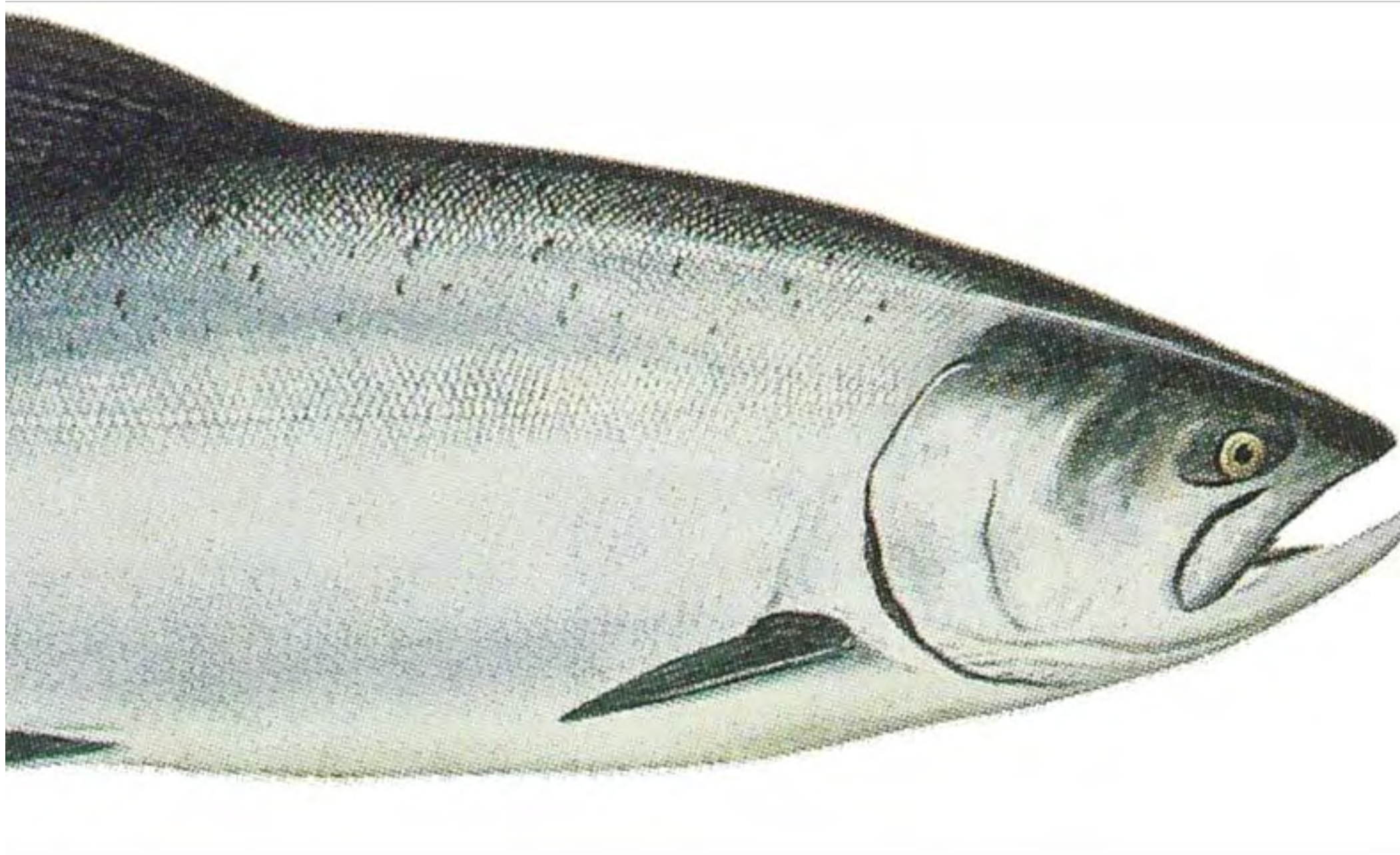
# Mitigation of Flood Loss – Sole Focus

1972 Rapid City, SD Flood:

- 237 killed
- \$160 million in property damage
- Only \$300,000 was insured

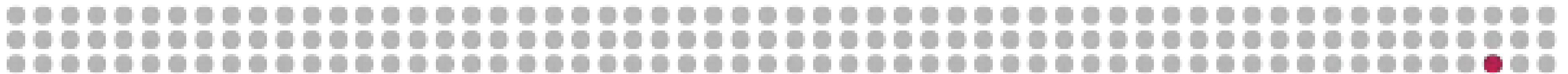


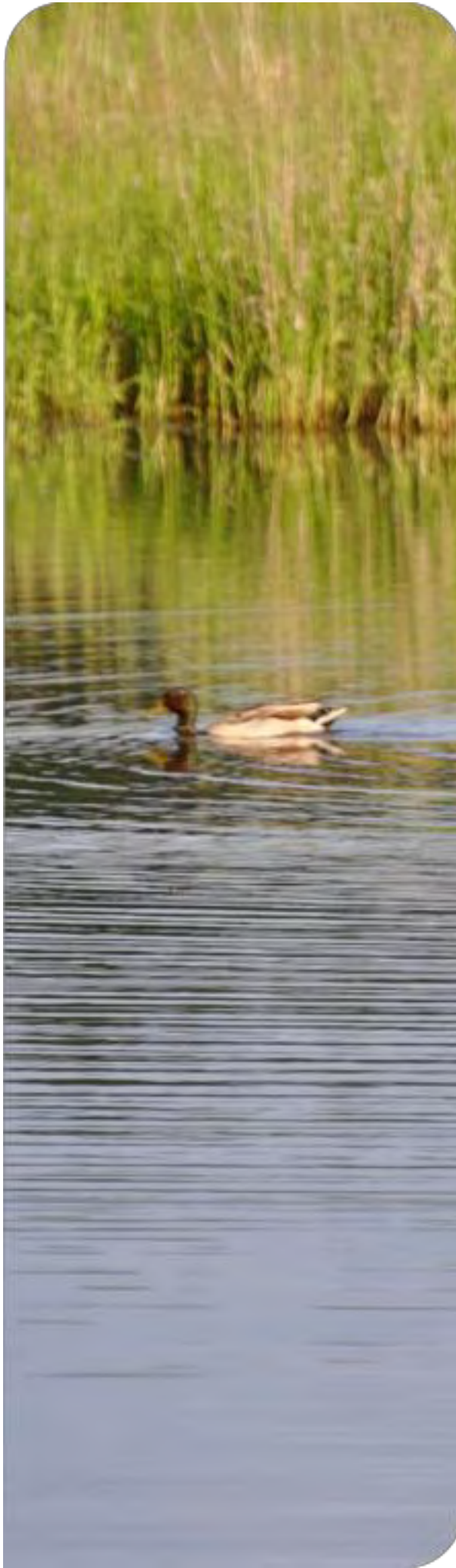




# And then...

Steve Morasch  
Schwabe, Williamson, &  
Wyatt





# ESA and the NFIP

- Citizen groups have used the NFIP in connection with the ESA to challenge development in or near floodplains
- Under the ESA, federal programs and projects must “not jeopardize the continued existence of endangered or threatened species.”
- A federal judge held that the NFIP created jeopardy due to lack of “consultation.”

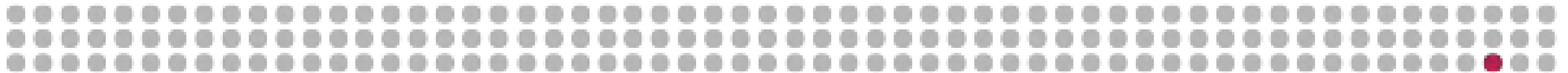






# Endangered Species Act

- Prohibits a “take” of a listed species
- Take can include “harming” or “harassing” a species
- ESA protects designated habitat for listed species



# Federal Guardians

- The National Marine Fisheries Service (NMFS) is the guardian for anadromous fish and marine mammals.
- The United States Fish and Wildlife Service (FWS) is the guardian for terrestrial and freshwater fish (and birds and mammals).
- Federal agencies must get approval from the guardians to initiate programs or projects that “may” impact listed species.
- The process of seeking approval under the ESA is known as “consultation.”

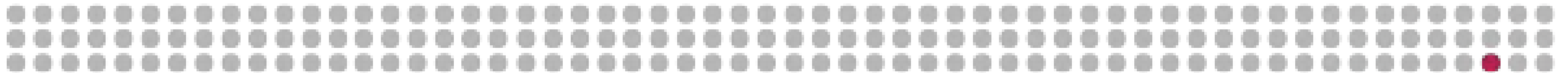






# Consultation Process

- The consultation process begins when a project or program proponent submits a Biological Assessment (BA)
- The BA is a scientific analysis of the impacts on a protected species of a program or project.





# Guardian Evaluation/Approval

- The guardian agency evaluates the BA (this can take from many months to many years) and issues its approval or disapproval
- The document the guardian agency issues is called a Biological Opinion (BiOp)
- The BiOp will list requirements for a project or program, known as the “reasonable and prudent alternatives.”

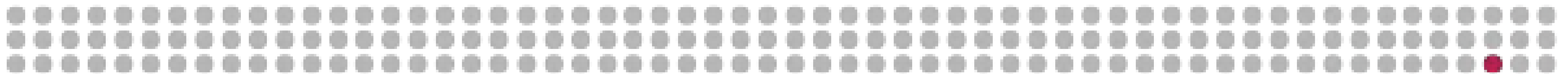






# ESA Violation Penalties

- Penalties for violating the ESA are strong and severe.
- A federal court can block the NFIP if FEMA fails to comply with the ESA.

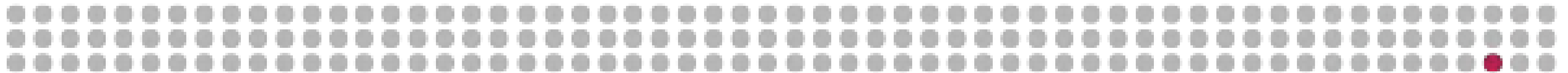




# National Wildlife Federation v. FEMA

## The Plaintiff's Case:

- Development in (or use of) waterfront areas (such as floodplains and floodways) damages habitat necessary for listed species.
- The NFIP facilitates development in (and use of) waterfront areas, including floodways and floodplains.
- The NFIP must be stopped or modified to protect listed species.







# National Wildlife Federation v. FEMA

## Court's Decision:

- Court found that FEMA violated ESA by failing to consult with NMFS on:
  - Minimum eligibility criteria for the NFIP
  - Floodplain mapping and revisions
  - Community rating system
- Court ordered FEMA to consult with NMFS

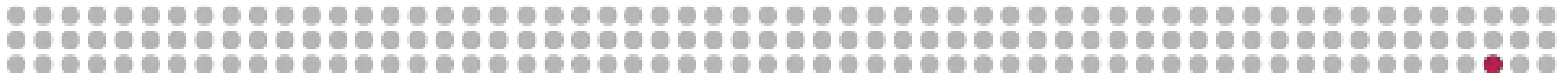




# National Wildlife Federation v. FEMA

## Timeline:

- 2004 – Court Ordered Consultation
- 2006 – FEMA filed Biological Evaluation with NMFS
- September 22, 2008 – NMFS issued BiOp
- May 14, 2009 – Errata Sheet Clarifying Buffer Provisions, and other issues
- September 22, 2011 – Deadline to Integrate BiOp Provisions with NFIP standards for Puget Sound communities

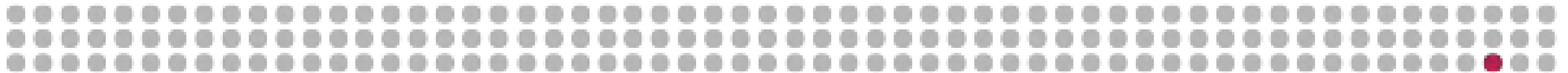






# Impact of NWF v. FEMA Ruling on NFIP

- The first BiOp (phase 1) is limited to the Puget Sound area of Washington (12 counties and all cities within those counties).
- Phase 2, which will involve a new BA and a new BiOp (a process that can take years) will address the rest of Washington.





# Possible Legal Challenges

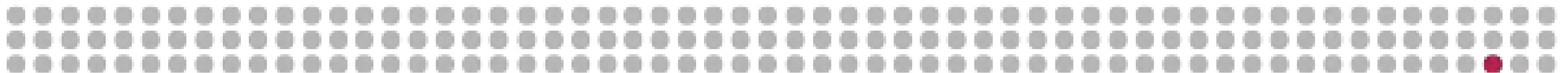
- Federal law requires that “critical habitat” for a listed species has to be designated in a specific and special process. See *Bennett v. Spear*, 520 U.S. 154, 117 S. Ct. 1154, 137 L. Ed. 2d 281 (1997).
  - Critical Habitat Designation was only made for areas below the Ordinary High Water Mark (OHWM)
  - BiOp adds new riparian buffers that extend beyond the OHWM.
- FEMA did not follow a “rulemaking” process in adopting the model ordinance. See *San Luis & Delta-Mendota, et al v. Salazar*, 663 F. Supp 2nd 922, WC 3823934 (E.D. Calif. 2009).





# Obstacles to Legal Challenges

- The parties (homebuilders) that originally fought this case have been rocked by the recession.
- Port interests have provided input and some changes to the Model Ordinance were made in response.
- To date, no legal challenges to the BiOp or Model Ordinance have been filed.







# “Reasonable and Prudent Alternative”

**Requires jurisdictions to implement the BiOp in one of several ways:**

- Adopt FEMA’s model ordinance.
- Demonstrate through the “checklist” approach that existing ordinances adequately protect the species.
- Adopt a combination of the model ordinance and existing regs.
- Show compliance with the ESA on a permit by permit basis.
- Prohibit all development in the floodplain.





# Changes to the NFIP Minimum Criteria

**Read Stapleton, AICP, BergerABAM**

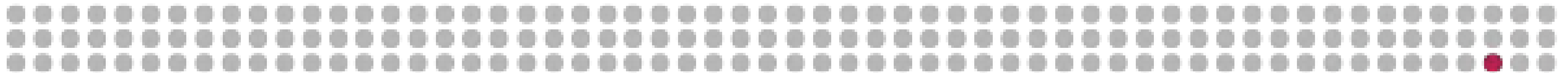
1. Includes habitat impact standards as a part of the minimum NFIP criteria.
2. Adds a layer of habitat protection that exceeds the requirements of local shoreline master programs and critical areas ordinances.
3. Establishes new requirements for a riparian buffer zone within the 100-year floodplain.



# Terminology

## **100-year Floodplain = Special Flood Hazard Area (SFHA)**

- Area with up to a 1% annual probability of flood inundation



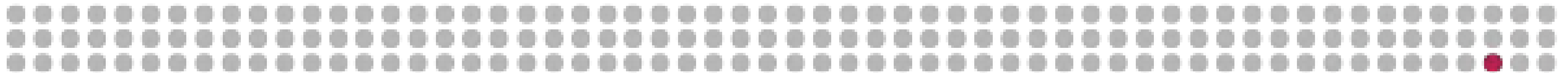




# Terminology

## Riparian Buffer Zone = Riparian Habitat Zone

- Water body and adjacent land areas that are likely to support aquatic and riparian habitat.
- Designated by the March 14, 2009 errata sheet
- Based on Washington Department of Natural Resources Forest Practices Water Typing classification system
- Off-set from the OHWM as follows:
  - 250 feet for a Type S stream (Shoreline of the state)
  - 200 feet for a Type F stream greater than 5 feet wide
  - 150 feet for a Type F stream less than 5 feet wide and lakes
  - 150-225 feet for Type N nonsalmonid bearing and seasonal streams, depending on slope stability.







# Terminology

## Protected Area

Greater extent of:

- Habitat buffer (250 feet from OHWM of Type S streams of the state).

*and*

- Channel migration zone plus 50 feet

*and*

- Mapped floodway



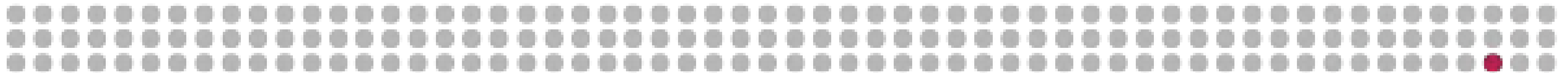




# Terminology

## Channel Migration Zone

- Defined as the “lateral extent of likely movement along a stream reach during the next one hundred years with evidence of active stream channel movement over the past 100 years.”

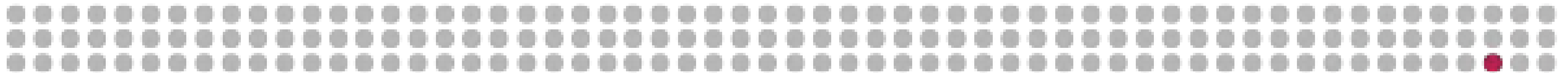




# Terminology

## Model Ordinance Defines a Regulatory Floodplain

- The 100-year floodplain plus the “protected area”
- Regulatory floodplain may exceed the extent of the 100-year floodplain.

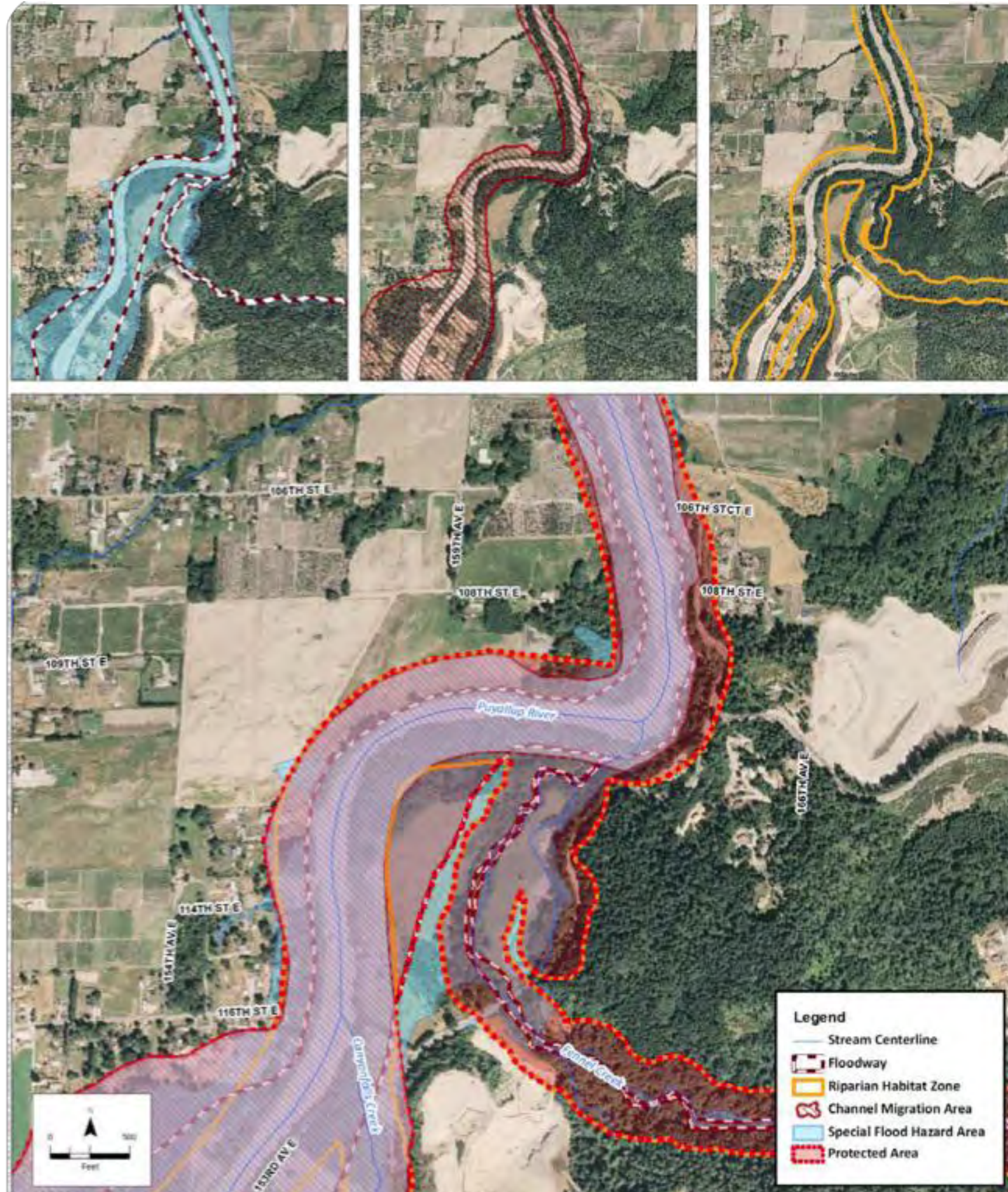




Special Flood Hazard Area

Channel Migration Zone

Riparian Habitat Zone



# Regulatory Floodplain

- Floodplain permit required for any development activity in the regulatory floodplain not explicitly exempt from the BiOp or the ordinance.





# Development

**BiOp added the following text to the definition of development triggering floodplain permit review:**

- “any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations, storage of equipment or materials, subdivision of land, removal of substantial amounts of vegetation, or alteration of natural site characteristics located within the area of special flood hazard.”

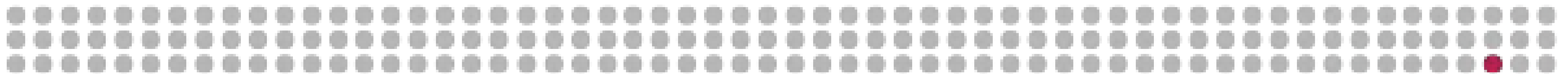




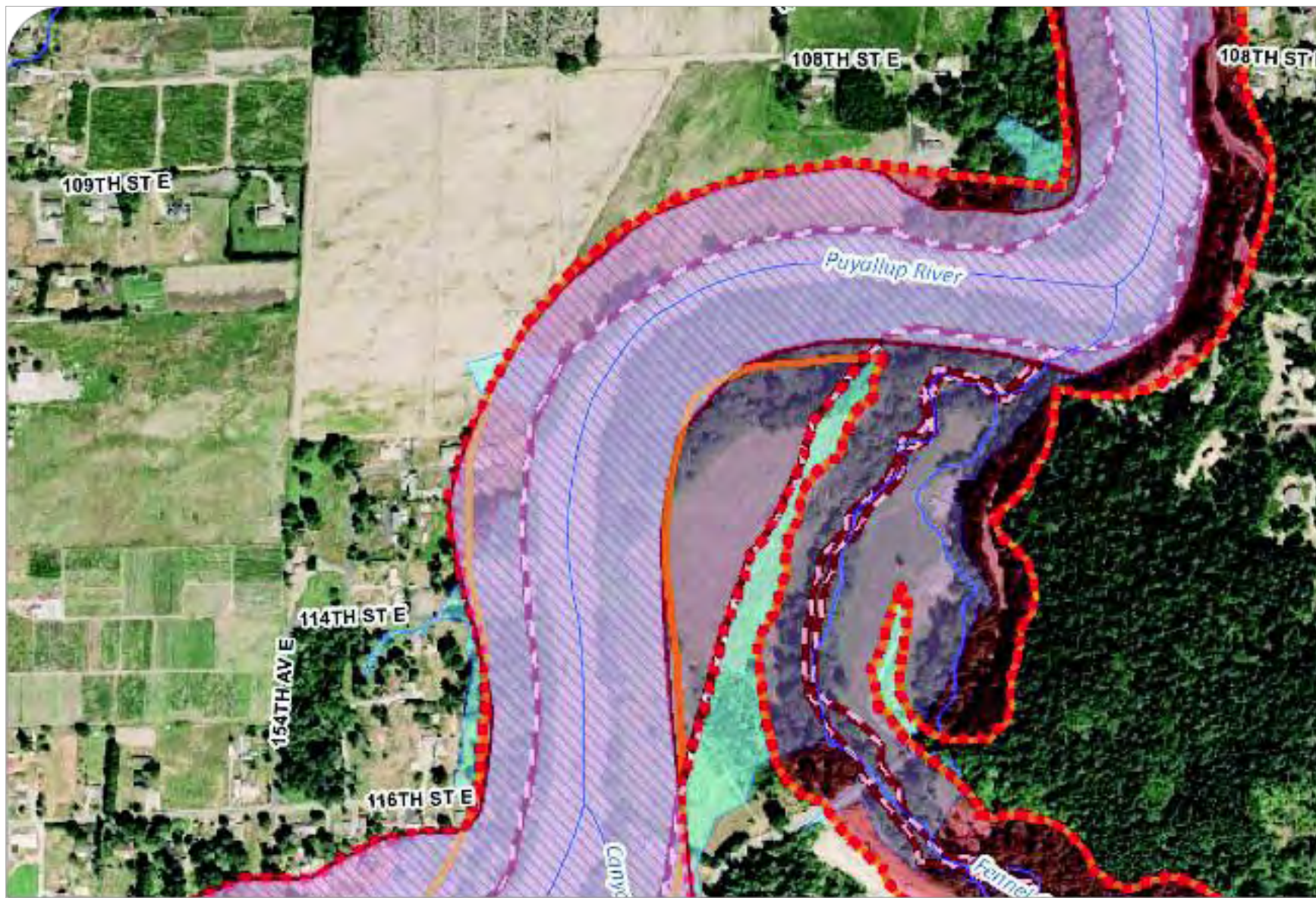


# New Development Standards - BiOp

- Compensatory storage required for all 100-year floodplain fills
- Prohibition of most development activities in the riparian buffer zone (RBZ) without submittal of a habitat assessment.
- Limitations on new impervious surfaces in the floodplain (>10-percent outside of the RBZ requires mitigation)
- Removal of native vegetation must leave 65% of the surface area of the portion of the lot in the floodplain undeveloped.
- For buildable lots partially located in a floodplain, structures must be located out of the mapped floodplain.
- Structures must be setback at least 15 feet outside the RBZ







## Floodplain Management and the Endangered Species Act A Model Ordinance

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Region 10

# Model Ordinance

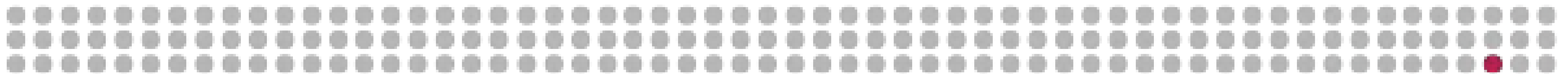
- Established by FEMA as guidance to communities seeking ESA compliance under the BiOp requirements.
- Initial draft issued January 2010 and final ordinance issued April 2011
- Received input from various communities and development interests (e.g., Pacific Northwest Waterways Association)
- Can be adopted wholesale (Door 1 communities) to achieve BiOp compliance





# Model Ordinance Concerns

- Regulations could extend beyond the 100-year floodplain. (Community Rating System credits available)
- Uniform riparian buffer zones do not recognize built conditions
- Definition of development includes outdoor storage. Could require port districts to obtain a floodplain permit for changing outdoor materials stored onsite.
- Hazardous materials prohibitions in the floodplain - broadly defined.
- 180-day permit approval window- Requires “start of construction” within 180-days of permit issuance. “Start” does not include preliminary grading.





# Habitat Assessments

*Required for:*

- Most new development within the Riparian Buffer Zone
- Development that exceeds “native vegetation” clearance limitations within the Special Flood Hazard Area (35% of the surface area of the portion of the property in the floodplain and outside of the riparian habitat zone).
- FEMA has provided guidance for habitat assessment and mitigation in conjunction with the model ordinance.



## Floodplain Habitat Assessment and Mitigation

Draft Regional Guidance

2011



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# Habitat Assessment Reviews

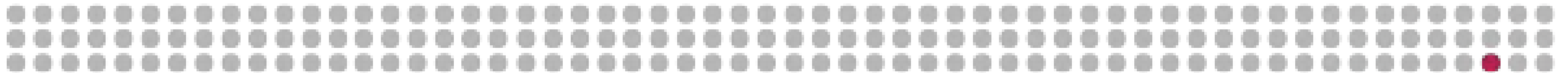
- Applicable standard is “no adverse affects to water quality, water quantity, flood volumes, flood velocities, spawning substrate, and/or floodplain refugia...”
- Mitigation: avoidance, minimization, restoration, and compensation
- Must address the direct, indirect, and cumulative affects of the proposed action.





# NFIP Habitat Assessment Reviews

- Local jurisdictions conduct the reviews.
- Records of approvals must be retained for periodic review (every 5 years) by FEMA.
- If project already requires ESA consultation in conjunction with a federal permit, this can substitute for an NFIP floodplain habitat assessment.

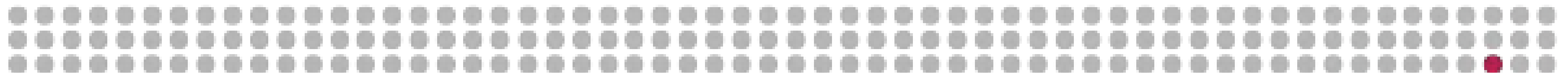




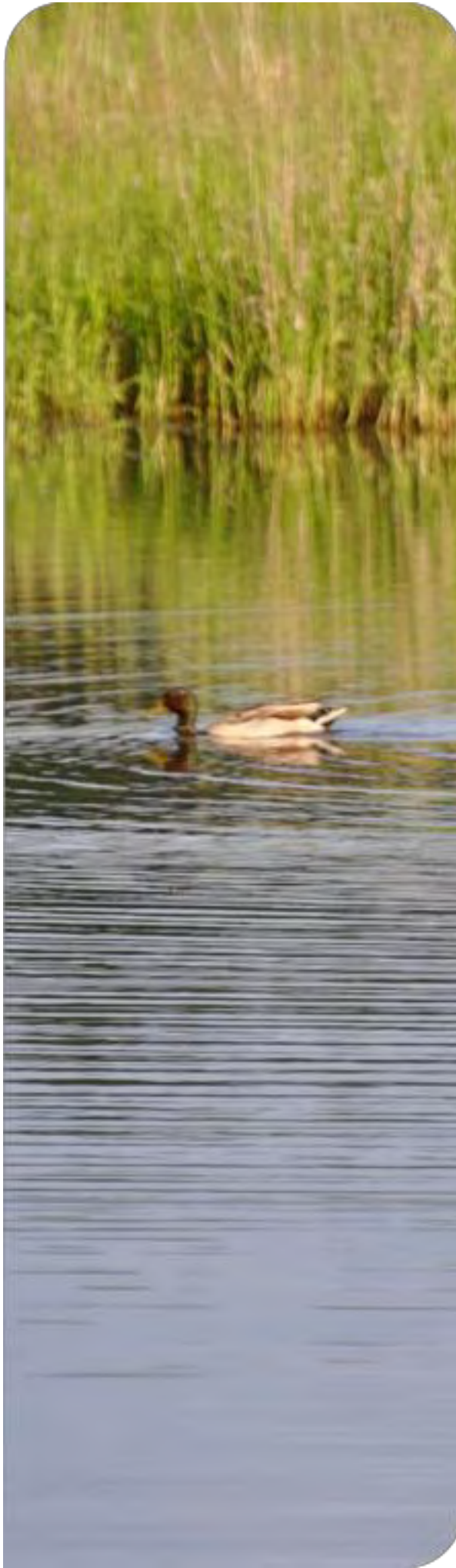


# Compensatory Storage

- BiOp requires that “Any development in the 100-year floodplain must be compensated, for example, through the creation of an equivalent area and volume of floodwater storage and fish habitat through a balanced cut and fill program.”
- Compensatory storage is required whether or not a no-net-loss in floodplain storage has been determined.







# Compensatory Storage

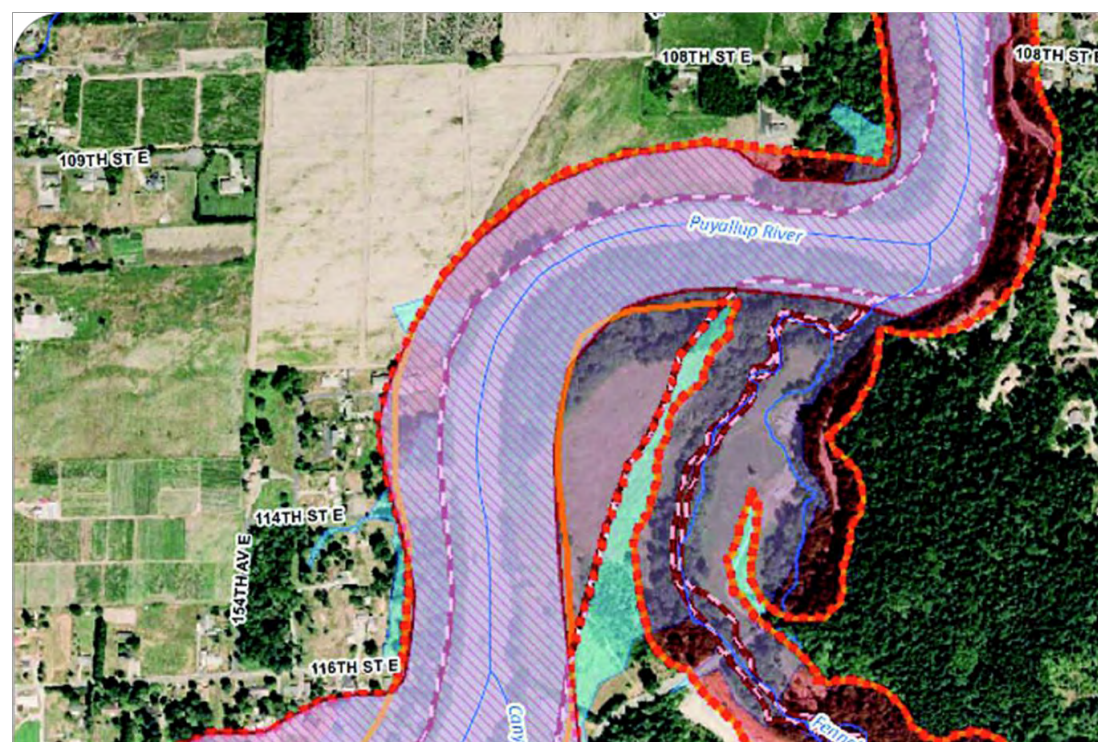
## Requirements

- Must be “hydraulically connected” to the source of flooding to avoid fish stranding.
- “[E]quivalent volume at equivalent elevation” is required
- Storage must be created in the same construction season as fill.
- No clarifying language as to what constitutes a hydraulic connection between the site of compensatory storage and flood source.
- Depending on the interpretation of a hydraulic connection, finding sites for compensatory storage could be difficult and costly.
- High water tables may limit the depth of excavation, requiring large areas devoted to storage creation.
- FEMA is working on guidance on this issue.





# Options for Compliance



## Floodplain Management and the Endangered Species Act

## A Model Ordinance

April, 2011



# Door 1



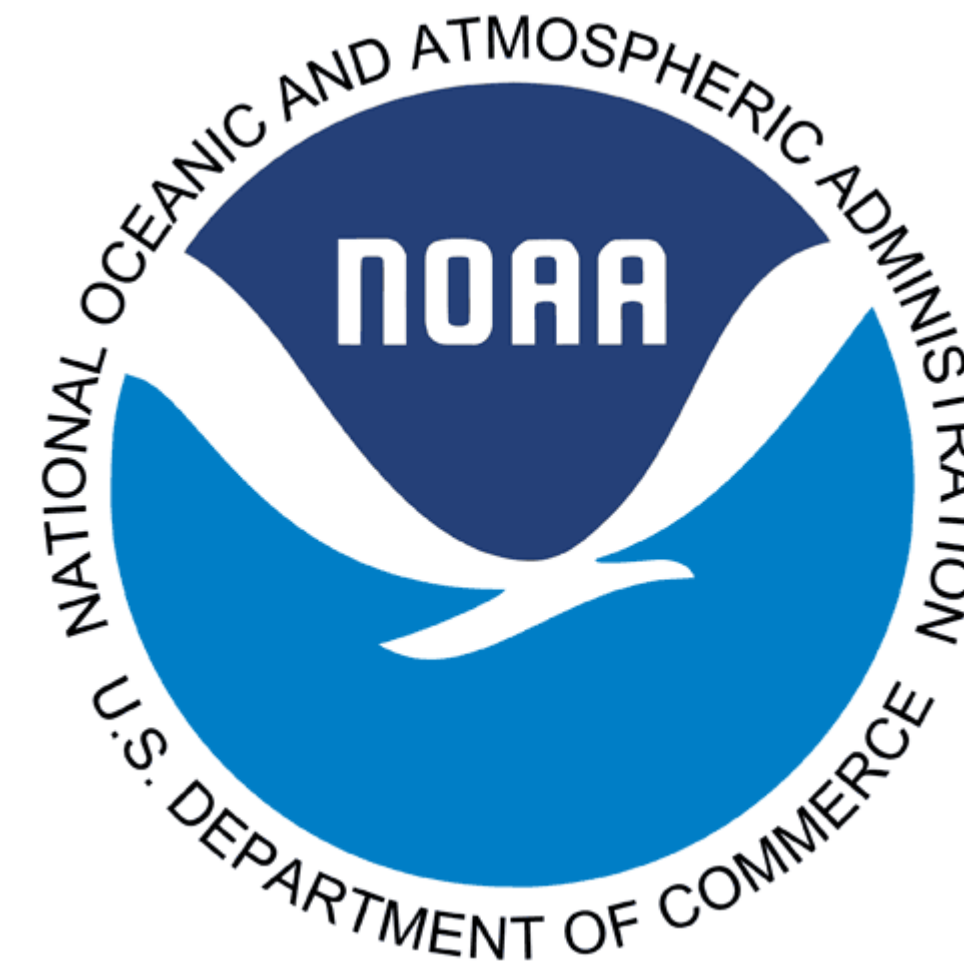
## Floodplain Management and the Endangered Species Act

## Checklist for Programmatic Compliance

April, 2010



## Door 2



## Permit by Permit NMFS Review

## Door 3

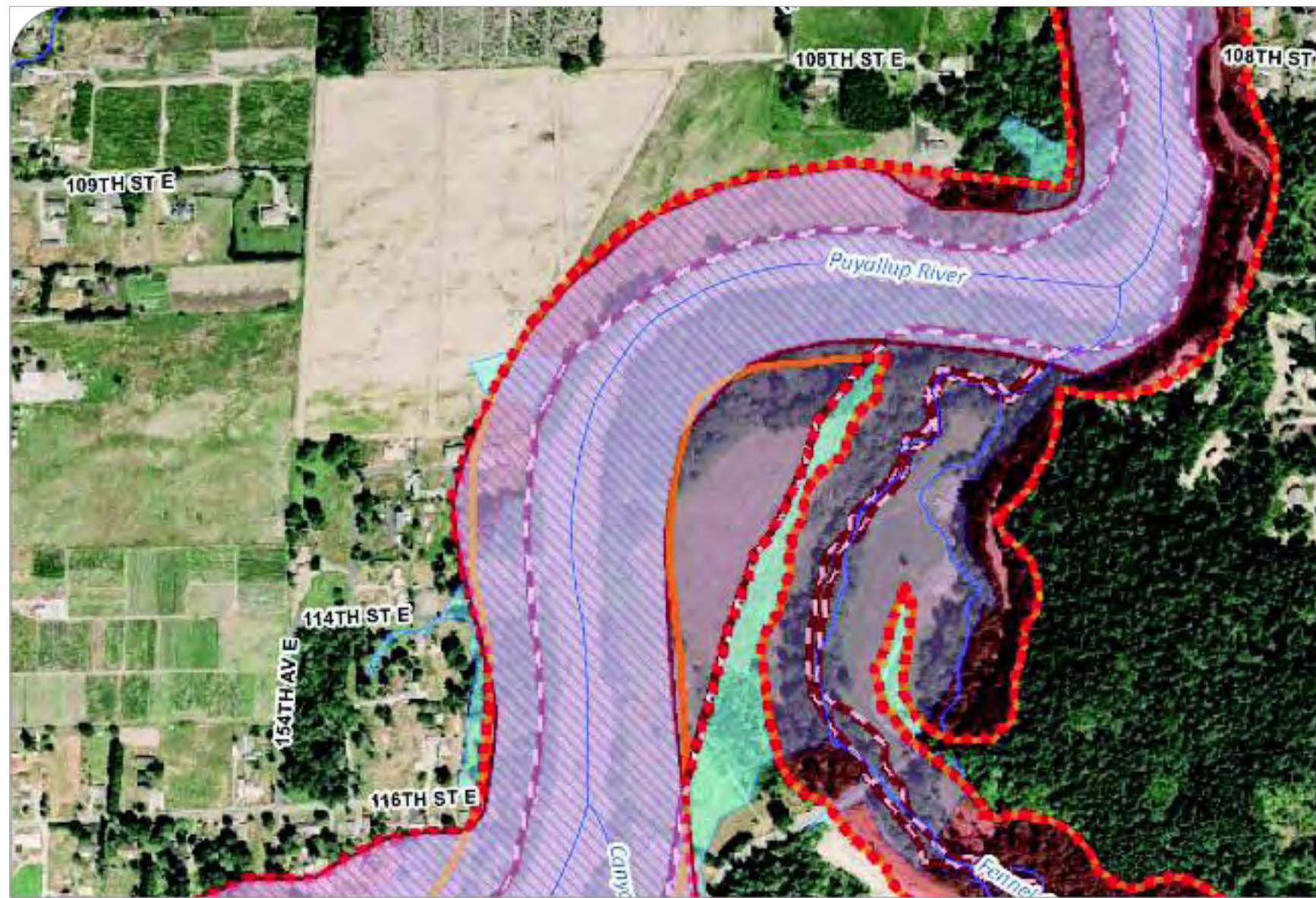




# Door 1: Adopt the FEMA Model Ordinance

Communities that have selected this option:

1. Auburn
2. Granite Falls
3. Roy
4. Skokomish Indian Tribe



## Floodplain Management and the Endangered Species Act

### A Model Ordinance

April, 2011



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# Door 2: Programmatic Compliance

- 36 communities have submitted for review under this option.
- Only five communities have been approved by FEMA:
  1. Arlington
  2. Ferndale
  3. Lake Stevens
  4. Mount Vernon
  5. Orting



## **Floodplain Management and the Endangered Species Act Checklist for Programmatic Compliance**

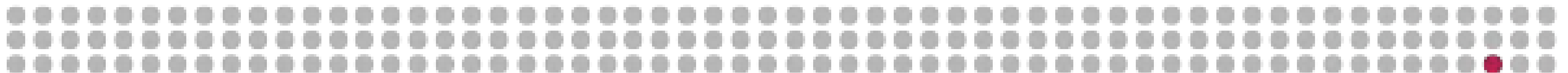
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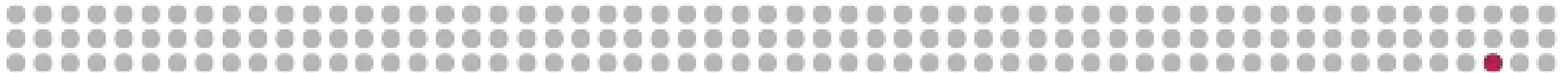
## Door 2: Programmatic Compliance

### Pros

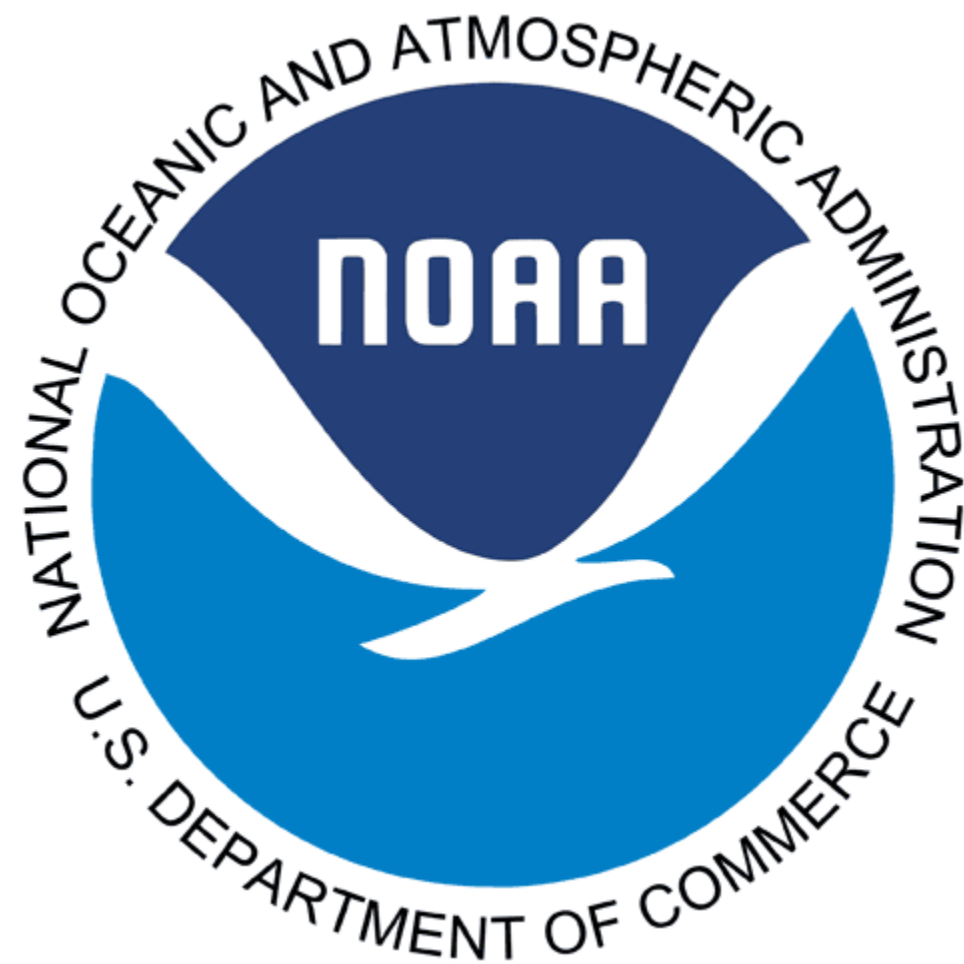
- Provides an opportunity to limit the extent of modifications necessary for compliance.
- Allows for demonstration that existing conditions should limit the standard riparian buffer zone.

### Cons

- Requires staff time and resources to present case to FEMA. (e.g., King County has been under review for over a year.)

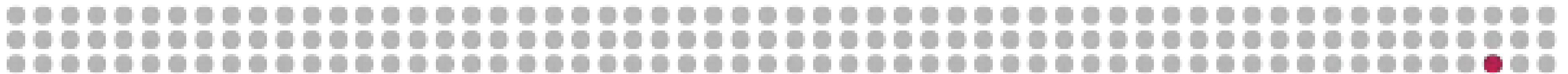






## Door 3: Permit-by-permit ESA Review

- 79 communities have indicated an intent to operate under this option.
- 3 additional communities are in Door 3 by default (no response to FEMA).







# Door 3: Permit-by-permit ESA Review

## Pros

- Doesn't require any changes to existing ordinances.
- Buys time for communities to see the outcome of Door 2 communities and consider the necessary changes
- Allows for transition to Door 2 through Shoreline Management Master Program (SMMP) update or other future code updates

## Cons

- All floodplain development permits require NMFS review and consultation
- Uncertain review timelines and loss of local autonomy

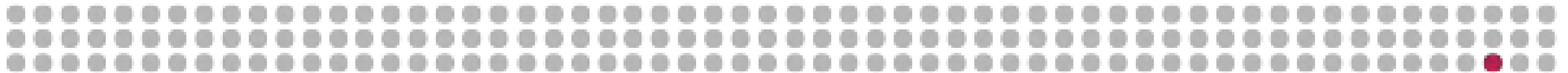






# What's in Store?

- Door 2 communities will continue to test the rules (only five of 36 are approved)
- Communities (e.g., King County) have proposed a programmatic approach to habitat impacts and are proposing buffer widths less than those prescribed under the biological opinion checklist
- Many communities committed to follow Door 3 may likely move to Door 2 through their upcoming updates to the SMMP







# Oregon Process

Peter Livingston, Schwabe, Williamson, & Wyatt

## Audubon Society of Portland et al v. FEMA (2009)

- Lawsuit filed against FEMA by the Audubon Society of Portland, National Wildlife Federation, Northwest Environmental Defense Center and Association of Northwest Steelheaders
- Cites the court's decision in *National Wildlife Federation v. Federal Emergency Management Agency* , 345 F. Supp. 2d 1151, 1174 (W.D. Wash 2004) and borrows from the findings from the 2008 NMFS BiOp.
- Asserts that FEMA's implementation of the NFIP in Oregon is a federal agency action that should require consultation under Section 7 of the ESA.







# Oregon ESA Lawsuit Settlement

- Settlement issued on July 9, 2010
- Required immediate institution of hold-in-place measures (limitations on Conditional Letters of Map Change, improved accuracy of maps depicting the floodplain)
- Required FEMA to request within 15 days that NMFS initiate informal consultation on:
  - Impacts to 15 listed species
  - Mapping of the floodplains and revisions
  - Implementation of the Community Rating System Program (CRS)



# FEMA's Preliminary Assumptions

- Statewide land use planning in Oregon would provide a convenient and rational approach to implementation of whatever strategies NMFS would require
- The Oregon Plan for Salmon and Watersheds (1997) would contain enforceable measures that could be shaped into a proposed action acceptable to NMFS





# Collision with Oregon Reality

- Goal 5 and the Goal 5 rule do not require full protection of significant fish habitat: regulation of riparian corridors (in OAR 660-023-0090) allows certain types of development (e.g., streets, roads, paths, drainage facilities, utilities, irrigation pumps, water-related and water-dependent uses) within the riparian area
- Goal 5 rule “safe harbor” setback requirements for development (50-75 feet) are not considered adequate by NMFS
- Periodic review is not required for counties and many cities
- The Oregon Plan for Salmon and Watersheds relies to a large degree on voluntary cooperative actions
- Without significant changes to state law and state administrative rules, FEMA will need to implement and insure compliance with new minimum criteria



# FEMA's Current Proposed Action

- BA is at program level
- Not yet public – is being negotiated with NMFS
- Applies only within the 100-year floodplain, to avoid “excess reach” issue that has arisen in Washington
- Describes a “no adverse impact” zone within the floodplain
- Requires mitigation for impact that occurs outside the no-impact zone

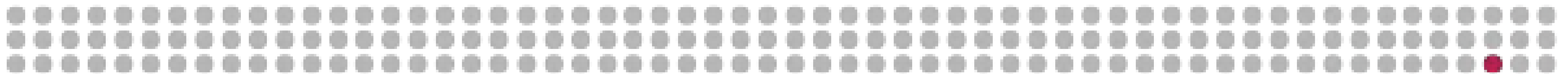






# NMFS Wants More Clarity Than FEMA has Provided

- Explain how impacts on endangered and threatened species will be avoided
- Provide assurances for implementation
- Anticipate some impact and describe ways that NMFS can allow incidental take within the program
- Better reflect the Reasonable and Prudent Alternatives described in the Washington BiOp

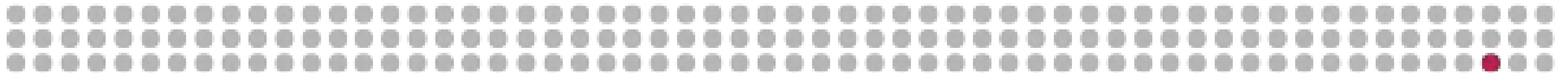




# NMFS's Additional Objections

FEMA's proposal

- Does not address channel migration zones
- Does not address restoration of the species

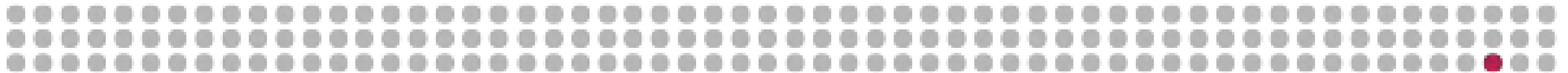






# NMFS and FEMA Appear to Be in Conflict

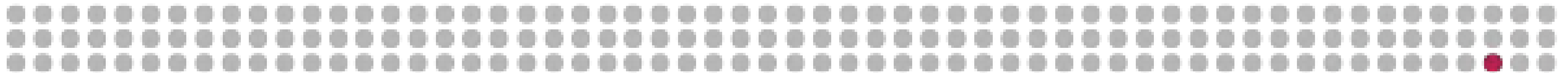
- FEMA contends that the NFIP extends only to the mapped 100-year floodplain boundary
- NMFS has a profound concern with impacts on the species
- NMFS wants to restore habitat and populations
- It appears new standards for development in the floodplain will be dictated by the BiOp, when it is issued
- BiOp will include an incidental take statement and Reasonable and Prudent Alternatives





# DLCD Proposal

- Take Clean Water Act approach as model to structure compliance with ESA requirements
- Develop Best Management Practices (BMPs) for 6-7 different categories of situations
- Create guidance for development (“sideboards”) to avoid need for incidental take permits in each case

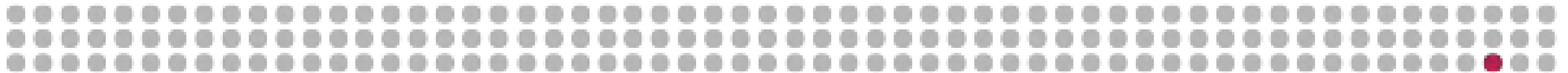






# Timeline: Unclear at Present

- Process is unusual because it follows the settlement agreement rather than federal regulations
- FEMA had until July 2011 (one year after settlement) to request formal consultation
- Request had to include BA
- NMFS had 60 days to request additional information, which it has done
- Additional information was due on October 17, 2011



# Looking Forward

- ESA gives NMFS one year to complete BiOp, but may take longer
- Implementation of new minimum criteria for participation in the NFIP may take longer than in Washington, with staggered compliance deadlines
- If FEMA and NMFS do not reach agreement, FEMA could become susceptible to third-party lawsuits
- Lawsuits may complicate and drag out the process

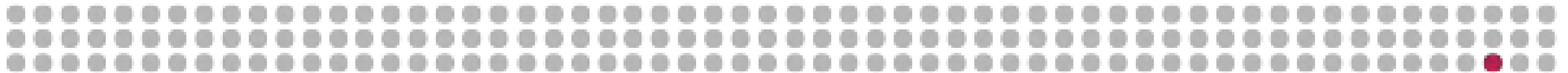






# Summary

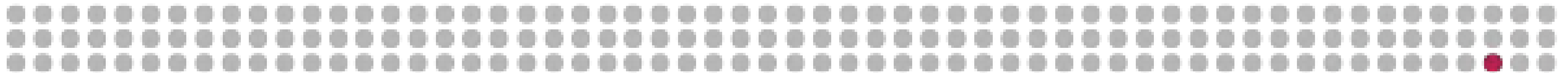
- Door 2 communities under review will set the goalposts for future compliance
- NMFS consultation is underway in Oregon.
- BiOp for the rest of Washington (outside the Puget Sound region) has not yet been prepared





# Technical Assistance

- FEMA Resources:  
<http://www.fema.gov/about/regions/regionx/nfipesa.shtm>
- Floodplain Technical Assistance Project, Kramer Consulting, Inc.  
Available at the Association of Washington Cities website:  
<http://www.awcnet.org>







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 SCHWABE,  
WILLIAMSON  
& WYATT  
ATTORNEYS AT LAW

# Questions

