

# Lummi Nation Wetland and Habitat Mitigation Bank



Kara Kuhlman, Deputy Water Resources Manager  
Lummi Natural Resources Department  
Lummi Indian Business Council  
September 29, 2016

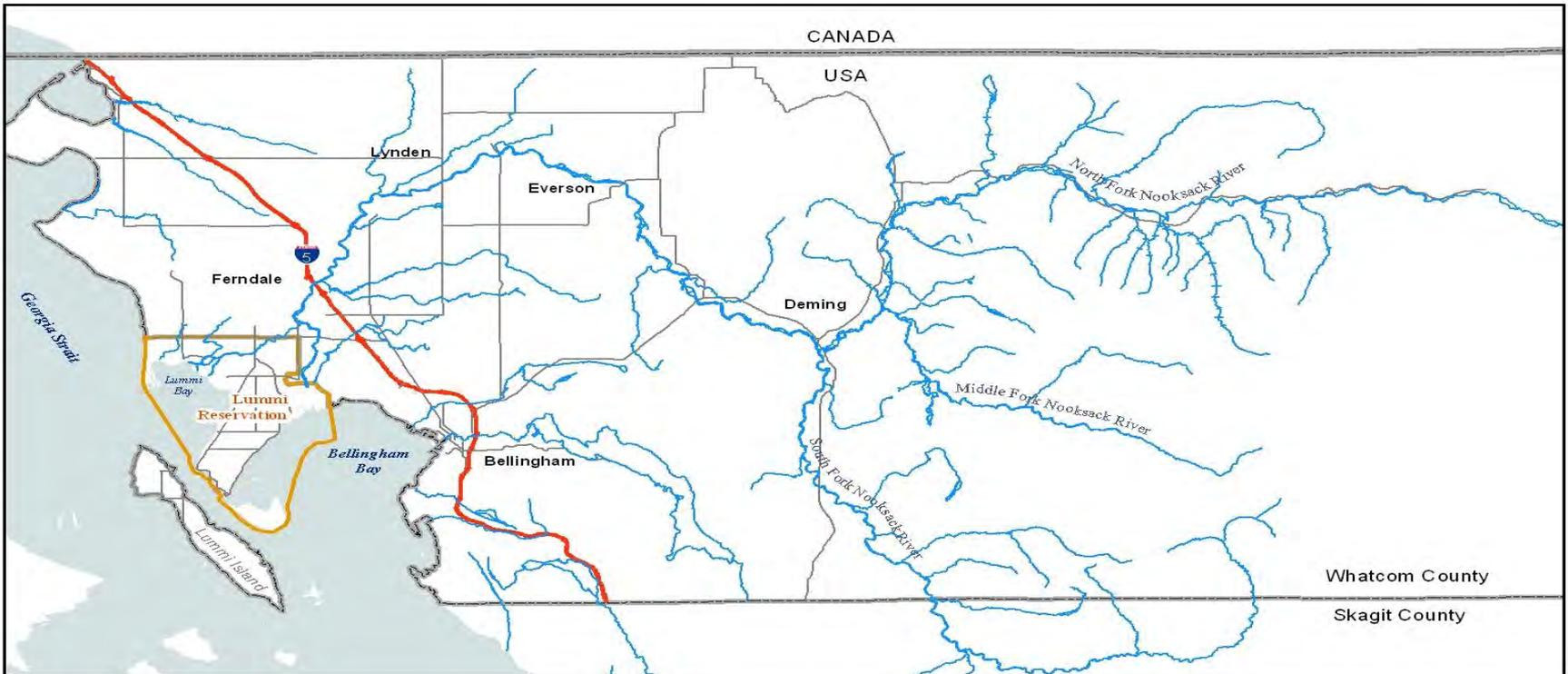


# Purpose Statement

- The purpose of this presentation is to:
  - Describe **why** the Lummi government decided to develop the Lummi Nation Wetland and Habitat Mitigation Bank;
  - Describe **where** the mitigation bank and associated service area are located and **what** is being done to generate mitigation credits;
  - Identify **when** the Lummi Nation Wetland and Habitat Mitigation became operational; and
  - Describe **who** is involved in the management of the mitigation and **how** the mitigation bank is administered.



# Lummi Indian Reservation

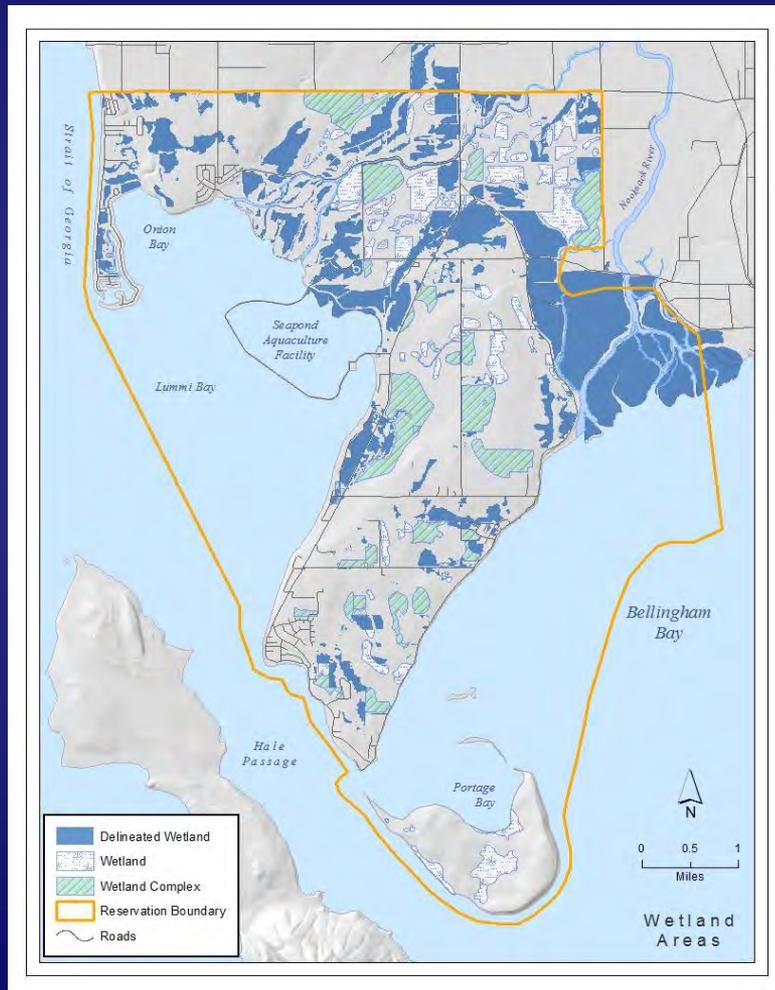


For this map and all other maps in this document, Lummi Nation GIS Department makes no claim as to the accuracy, completeness, or content of any data contained herein. Any user of this data assumes all responsibility for use thereof and further agrees to hold the Lummi Nation harmless from and against any damage, loss, or liability arising from any use of this data. This map is not intended to reflect the exterior or island boundaries of the Lummi Reservation. No part of this document may be reproduced without prior consent of the Lummi Nation.





# Why a Mitigation Bank?



- Reservation-wide wetland inventory in 1999 indicated that over 40% of the Reservation uplands are wetlands.
- The Lummi Nation needed an administratively efficient, technically sound, and legally defensible mechanism to effectively manage the Reservation wetland resources.



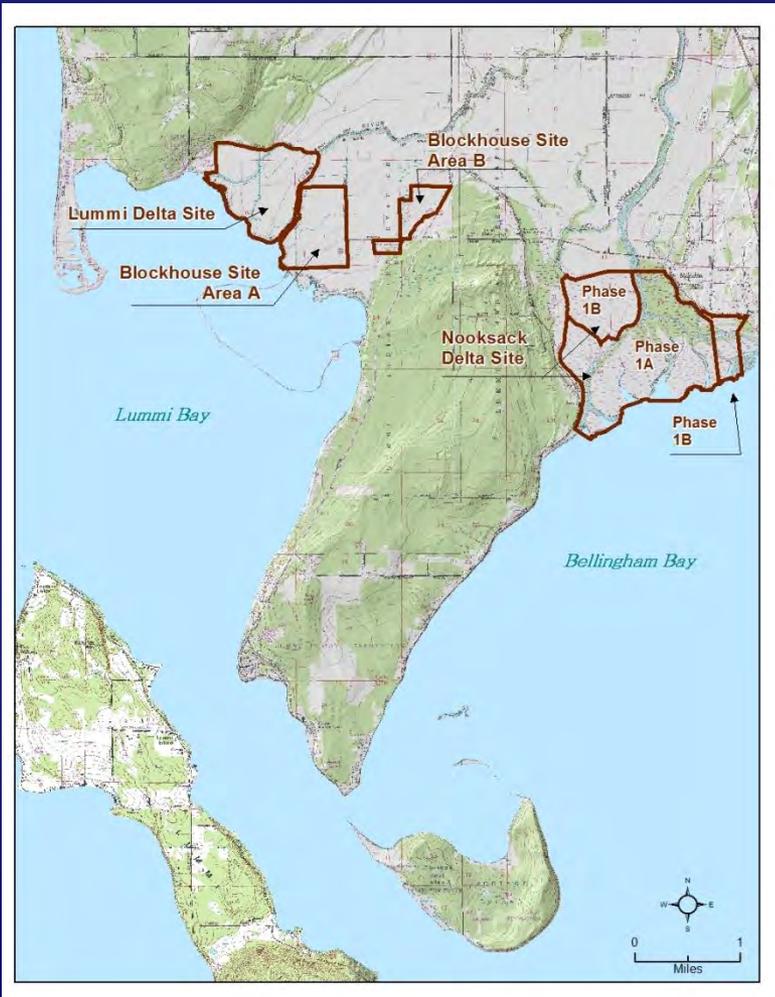
# Why a Mitigation Bank?

## Benefits of a Mitigation Bank:

- Mitigation banks provides “advanced” mitigation (i.e., ecological benefits occur prior to impacts).
- The size and location of mitigation banks can provide more of an ecological “lift” than smaller, distributed mitigation efforts.
- More accountable – higher success rates.
- More efficient use of permitting agency resources.
- More “value added” use of a limited land base than restoration projects, which generally have the same goals but different funding sources.

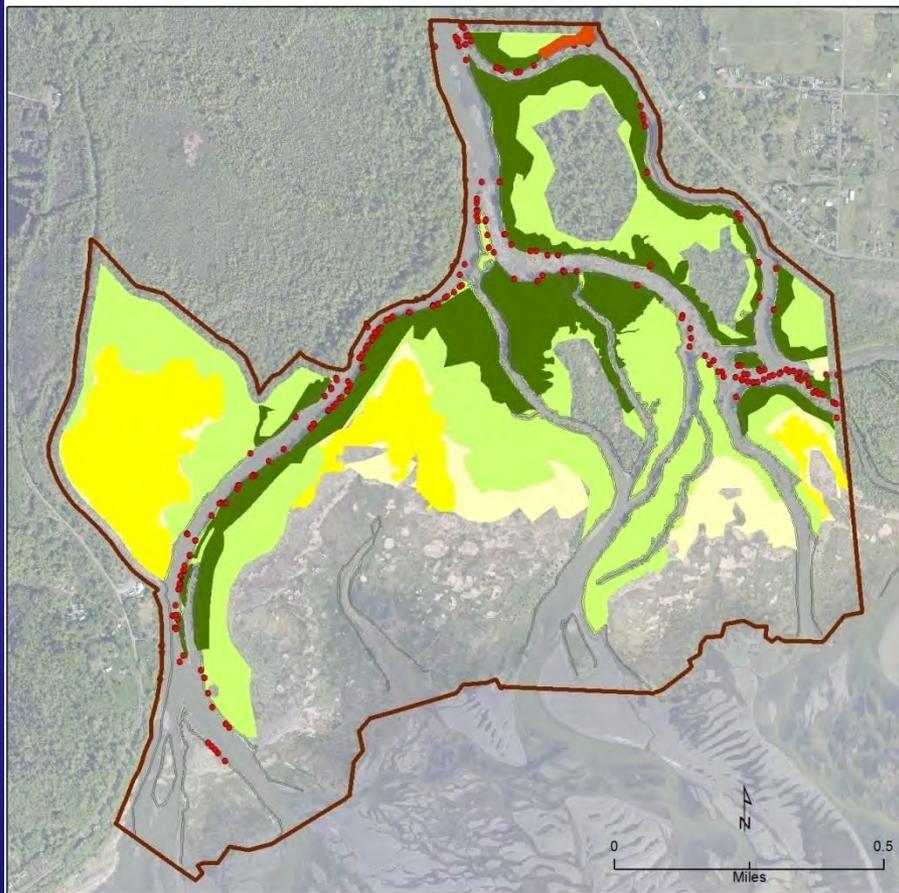


# What is the Mitigation Bank?



- Bank is comprised of approximately 1,965 acres on three separate sites on the Reservation: Nooksack Delta Site, Blockhouse Site, and the Lummi Delta Site.
- The bank is being developed in phases due to budget constraints and the need to own the entirety of each mitigation site – Lummi currently owns over 65 percent of the total area.
- The bank is part of an overall restoration effort of the estuary and is co-located with several restoration projects.

# What is the Mitigation Bank: Nooksack Delta – Phase 1A



- Mitigation Bank Boundary (Phase 1A)
- Conifer Underplant Zones (2012-2015)
- Conifer Underplanting Schedule
- RCG Treatment Areas (2011-2015)
- RCG 20ft Diameter Planting Patch Schedule
- Ivy Monitoring Area
- Knotweed Stem Injection and Removal
- 15 Foot Knotweed Treatment and Monitoring Area





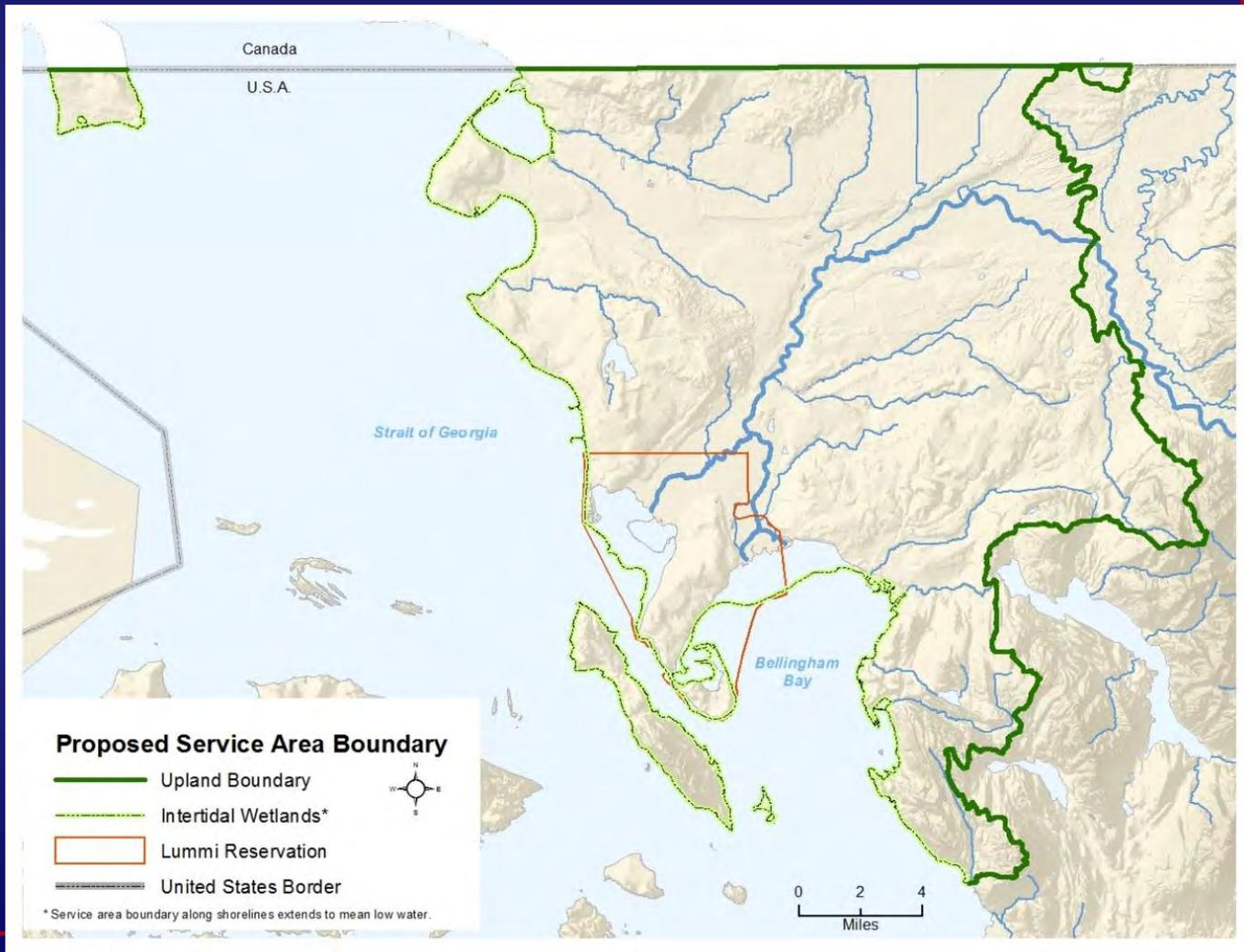
# What is the Mitigation Bank?

Site	Credit Generating Activities	Acreage	Potential Credits
Nooksack Delta (Phase 1A and 1B)	Enhancement	1,179	239
Blockhouse (Phase 2)	Re-establishment, Rehabilitation	374	249
Lummi Delta (Phase 3)	Re-establishment, Rehabilitation	412	343
<b>Total</b>		<b>1,965</b>	<b>831<sup>1</sup></b>

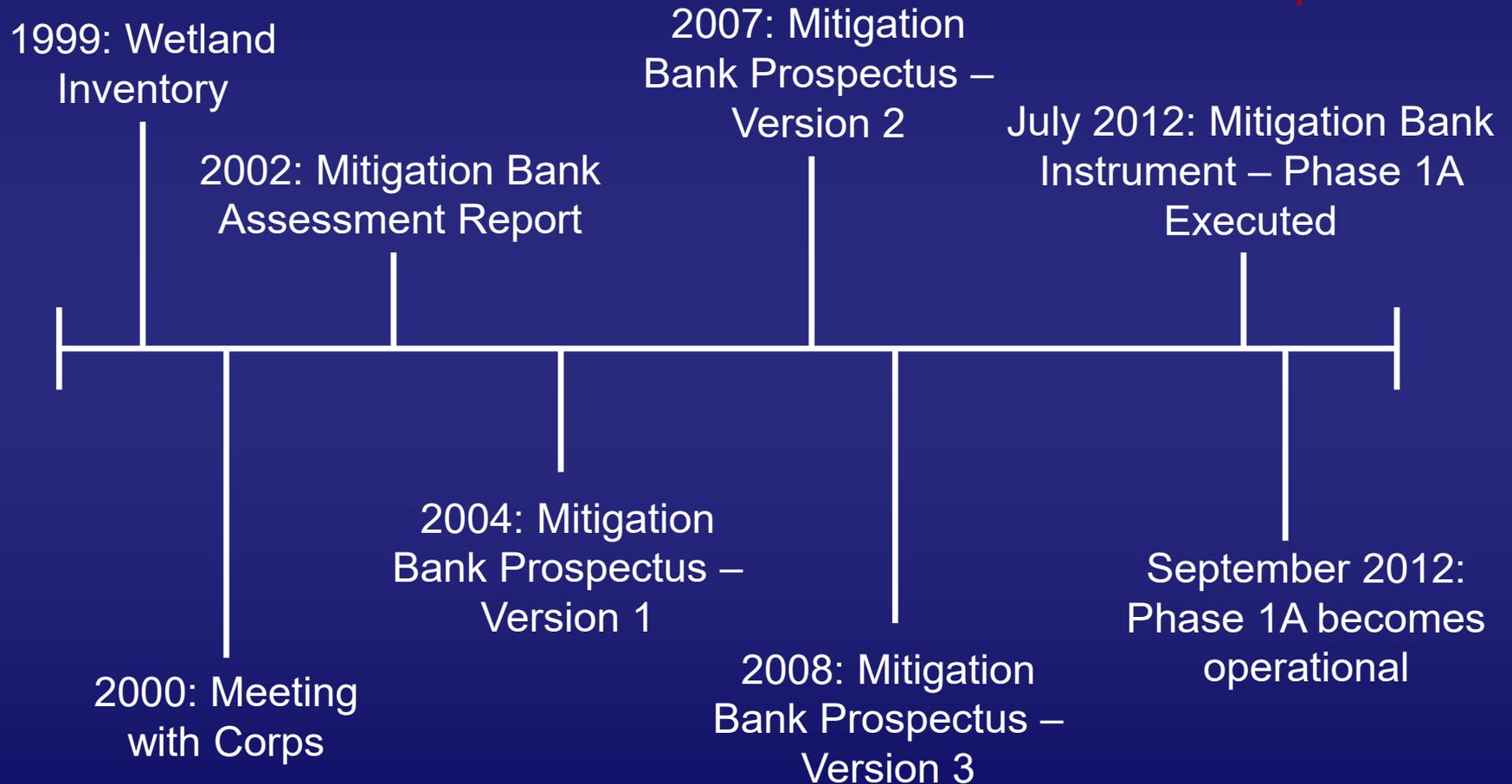
<sup>1</sup> 728 credits used for planning purposes



# Where is the Service Area?



# When did the Mitigation Bank Become Operational?



# How is the Mitigation Bank Administered?



- Development and Operation – Lummi Natural Resources Department (LNR)
- Decision Making – Inter-departmental Administrative Panel (LNR, Planning and Public Works, Cultural Resources)
- Interagency Review Team (IRT) – Corps, EPA, NMFS, USFWS, Ecology
- Land Ownership – Lummi Indian Business Council
- Conservation Easement – Northwest Indian Fisheries Commission



# Credit Allocation Plan

- 728 potential credits sold for \$300,000/credit would generate \$218 million in revenue.
- Approximately \$5 million is needed to fully establish the mitigation bank (i.e., buy land, build infrastructure).
- Approximately \$165,000 is needed annually to operate and maintain the mitigation bank.



# Adopted Credit Allocation

Market	No. of Credits	Percent Allocation
Individual Tribal Member Housing (Non-Commercial)	170	23.4
Tribal Government Housing Development Projects	170	23.4
Tribal Government Municipal Development Projects	169	23.2
Tribal Government Commercial Development Projects	169	23.2
Individual Tribal Member Commercial Development Project	25	3.4
Non-Member Development Projects	25	3.4
<b>Total</b>	<b>728</b>	<b>100</b>



# Adopted Discount Rates

<b>Market</b>	<b>Discount Rate</b>	<b>Cost Per Credit</b>
Individual Tribal Member Housing (Non-Commercial)	100%	\$0
Tribal Government Housing Development Projects	50%	\$150,000
Tribal Government Municipal Development Projects	50%	\$150,000
Tribal Government Commercial Development Projects	25%	\$225,000
Individual Tribal Member Commercial Development Project	25%	\$225,000
Non-Member Development Projects	0%	\$300,000



# Adopted Credit Ratios

<b>Resource Impact</b>	<b>Bank Credits: Impact Acreage</b>
Wetland, Category I	Case-by-Case
Wetland, Category II	1.2:1
Wetland, Category III	1:1
Wetland, Category IV	0.85:1



# Credit Sales To-Date

- 27.67 credits have been released by the IRT
- 26 transactions totaling 10.6 credits – \$2.5 million in revenue

Market	Credit Sales
Individual Tribal Member Housing (Non-Commercial)	0
Tribal Government Housing Development Projects	0
Tribal Government Municipal Development Projects	0.453
Tribal Government Commercial Development Projects	3.440
Individual Tribal Member Commercial Development Project	0
Non-Member Development Projects	6.705



# Summary and Conclusion

- Establishing the Lummi Nation Wetland and Habitat Mitigation Bank represents a regionally significant opportunity for ecological restoration on a large scale and provides the Lummi Nation with an administratively efficient, technically sound, and legally defensible mechanism to effectively manage wetland resources.
- Developing and implementing a wetland and habitat mitigation bank is a complex and time consuming undertaking.
- Phase 1A of the mitigation bank is operational; the remaining phases are being developed.
- See LNR website for more information (<http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=66>)

# Questions?



## **Contact Information:**

Kara Kuhlman, Deputy Water Resources Manager  
360-312-2128; [karak@lummi-nsn.gov](mailto:karak@lummi-nsn.gov)