

# Kł cp'alk' stim Hatchery and the Use of Cryopreservation for Conservation of Okanagan Sockeye Salmon (Oncorhynchus nerka)



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# Acknowledgements



## Thanks

Howie Wright  
(Program Manager)

Norm Johnson  
(Hatchery Manager)

Maureen Ritter  
(Cryogenetics)

Hatchery Staff



# Okanagan Nation Alliance (ONA)

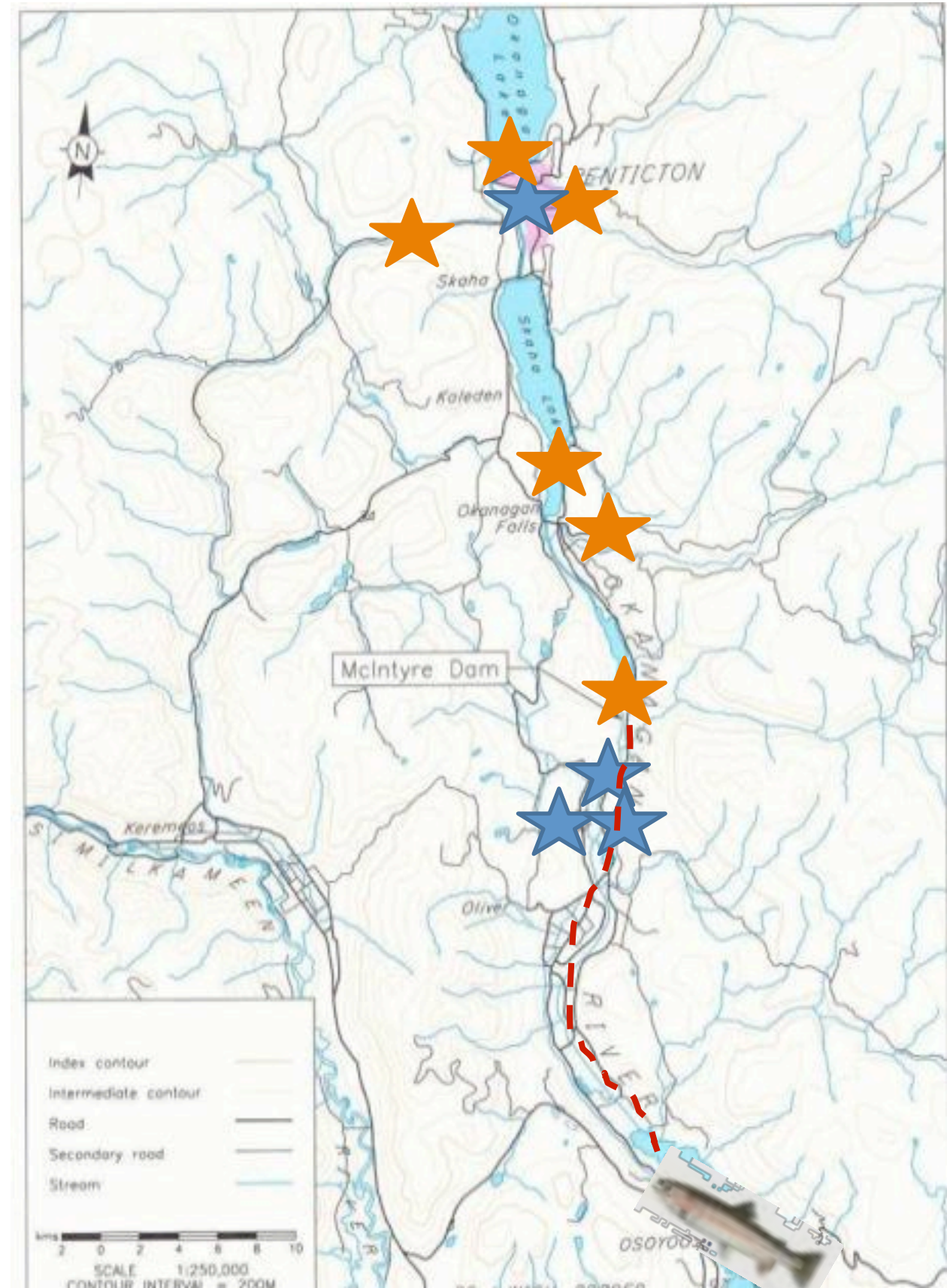
- Osoyoos Indian Band
- Penticton Indian Band
- Westbank First Nation
- Okanagan Indian Band
- Upper Nicola Band
- Lower Similkameen Band
- Upper Similkameen Band
- And the Colville Confederated Tribes (USA)



# ONA Fisheries Mandate

*The conservation, protection, restoration, and enhancement of indigenous fisheries (anadromous and resident) and aquatic resources within Okanagan Nation Territory.*

- **Fish Passage Projects**
- **Habitat Restoration**
- **Sockeye Reintroduction**
- **Flow Management**



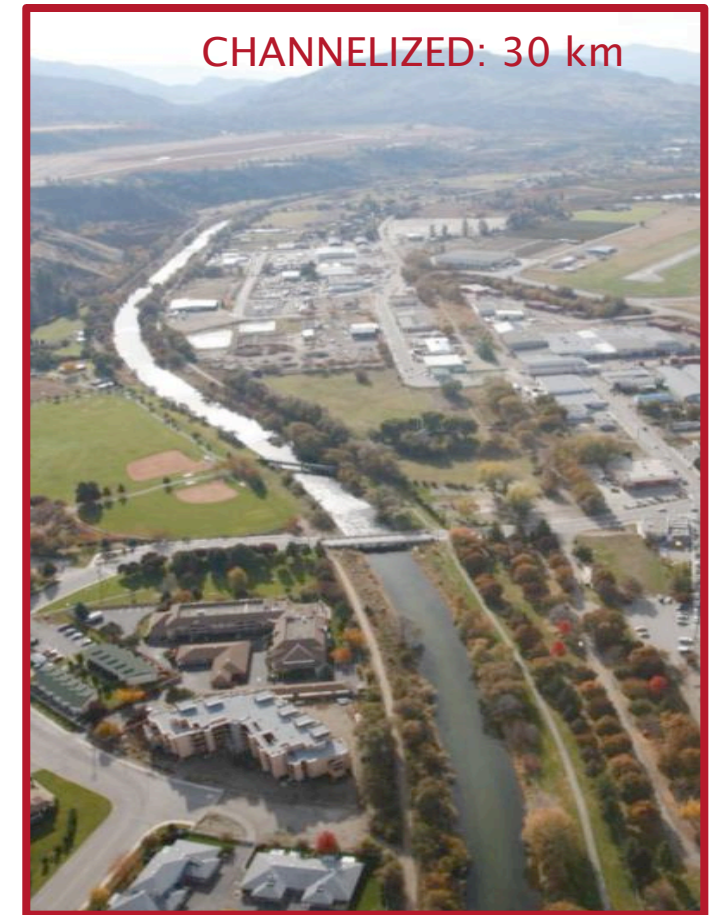


# Salmon Integral to Okanagan Culture



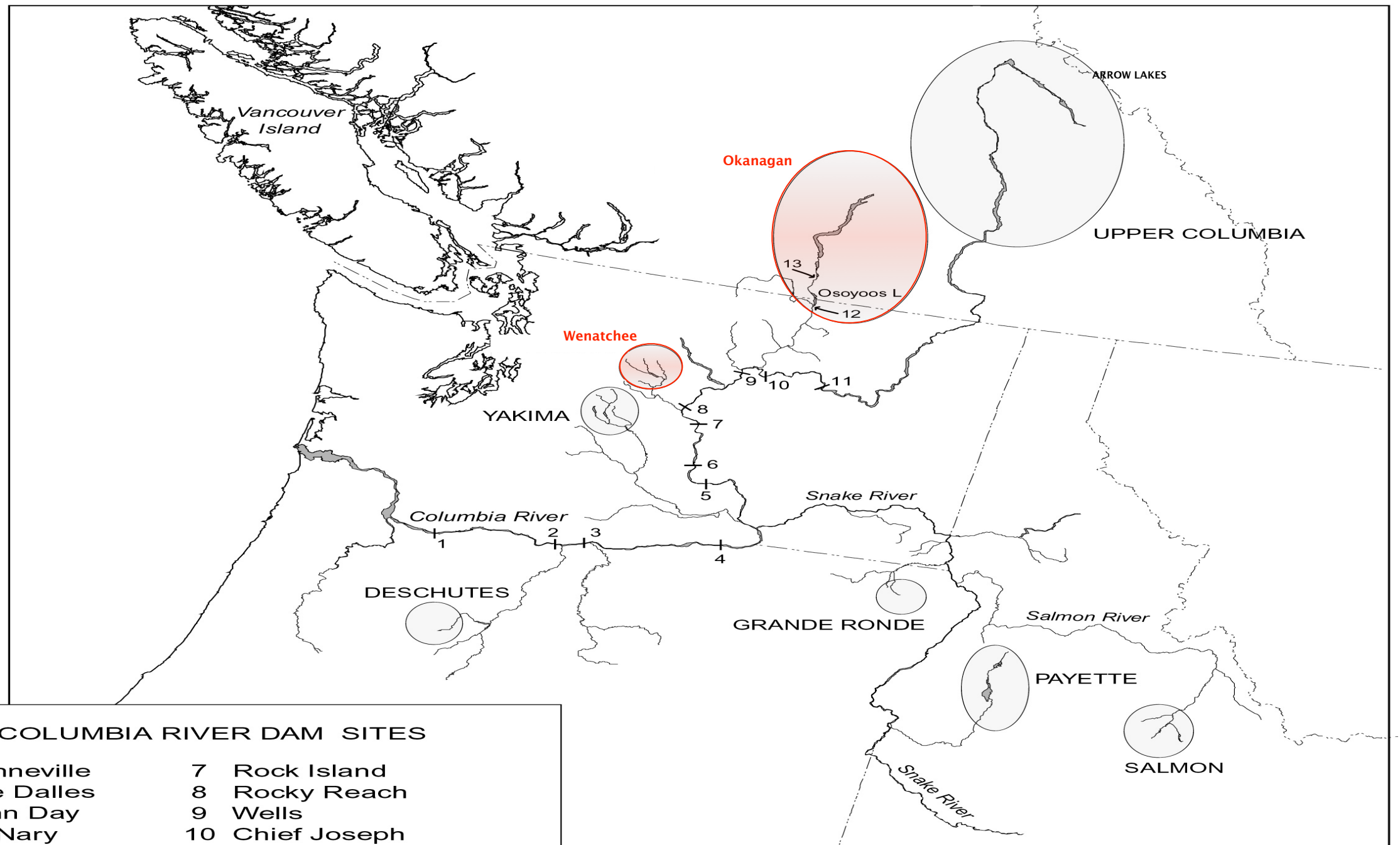


# Okanagan Sockeye Reintroduction





# Okanagan Sockeye Reintroduction







**“Cause to Come Back”**



# Kł c'pəlk' stim Hatchery



- 2014 First Year of Operation
- Capacity 5 Million Eggs
- Future 8 Million Eggs





# Brood Year 2014



- 1,105 Females Collected
- ~2.4 Million Egg Take
- Released ~1.7 Million



# Brood Year 2015



- Low Return
- Drought Conditions
- Early Snow Melt
- High Temps
- Low Flow





# Brood Year 2015



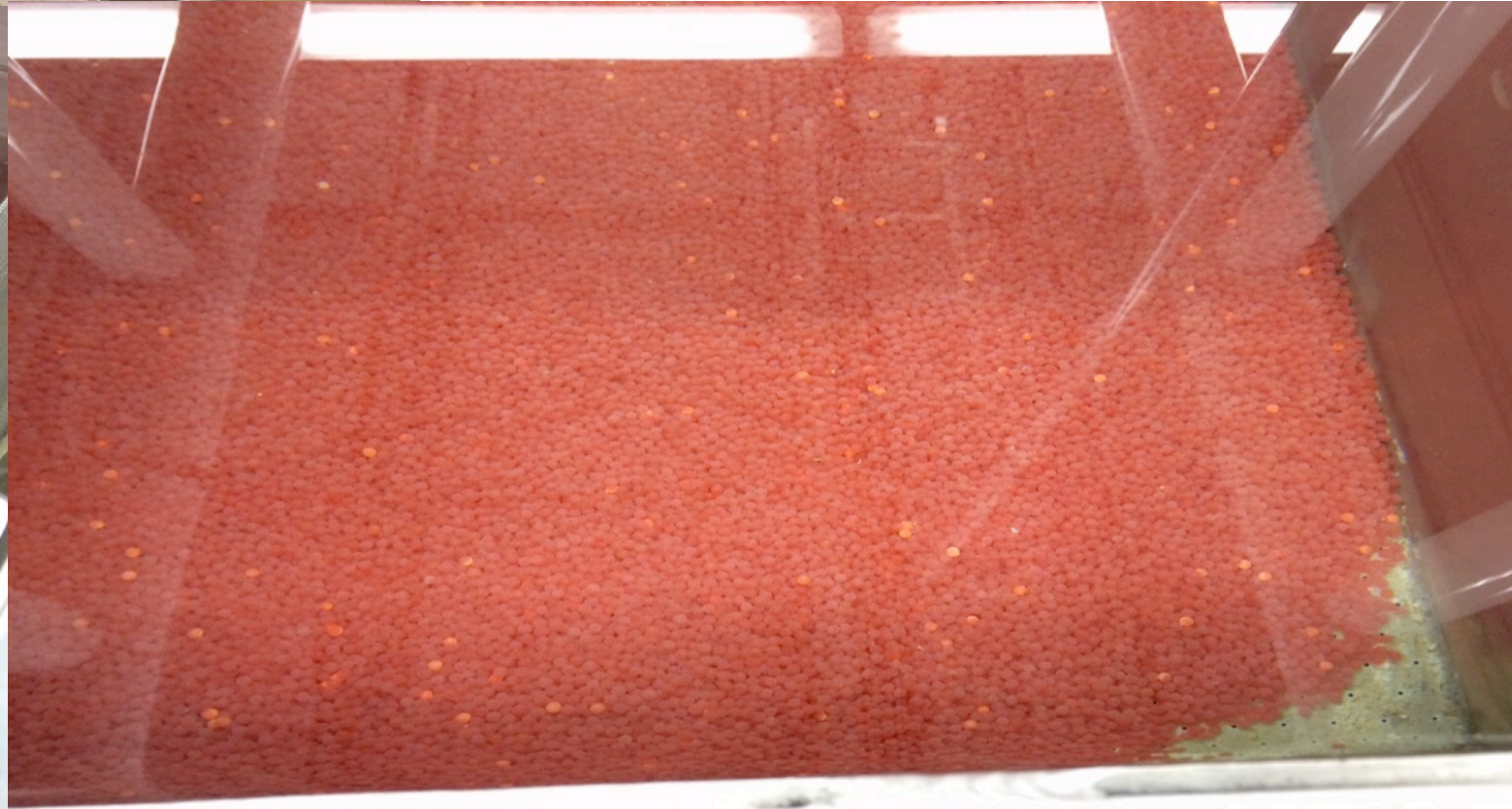
- Fish = Bad Shape
- Disease
- Low Fecundity



# Kł c'pəlk' stim Hatchery



- 239 Females Collected
- ~480,000 Eggs





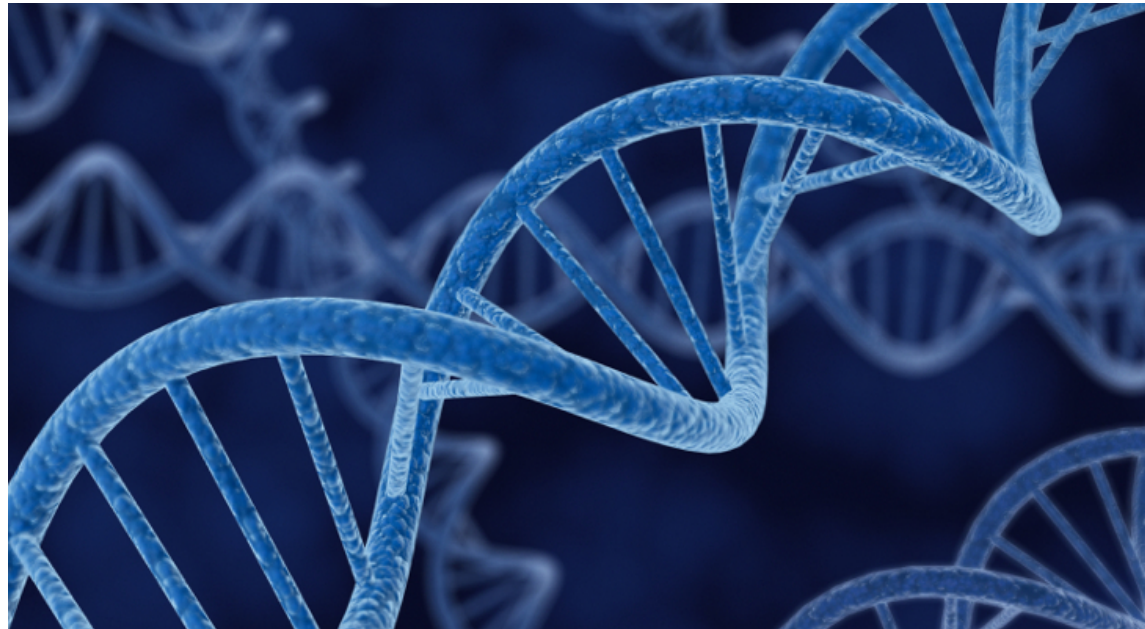
# Cryopreservation



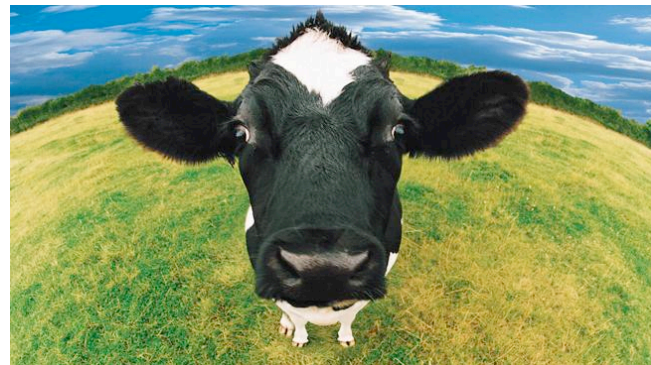
- Preserve Genetic Material
- Frozen In Liquid Nitrogen
- Reuse At Later Time



# Cryopreservation



- Create Gene Bank
- Assurance for Populations
- Natural Disasters





# Cryopreservation



- Started at KI  
cp'elk' stim  
Hatchery 2014
- Continued 2015
- ~80 Males Banked



# Summary





# Questions?

