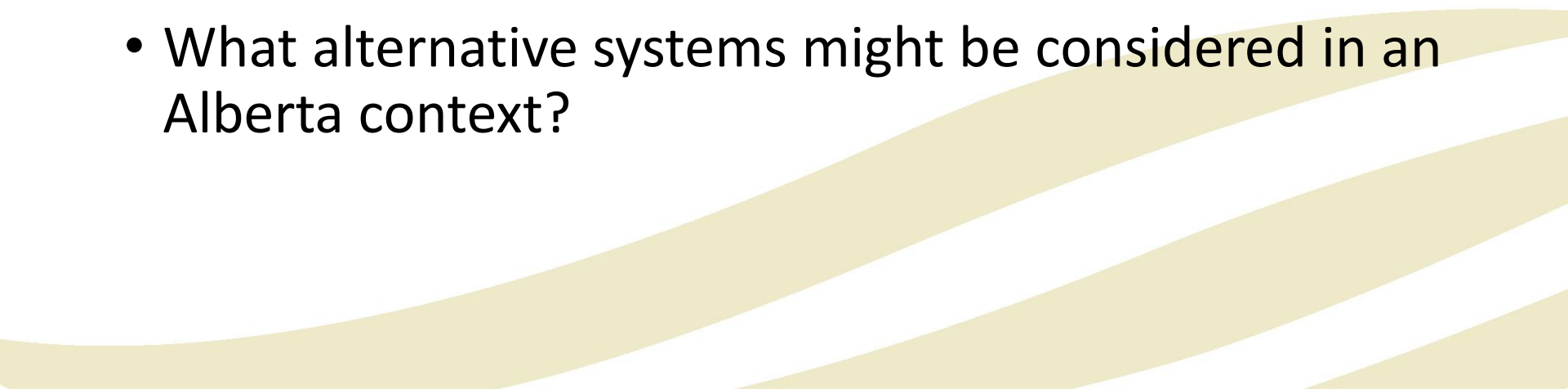
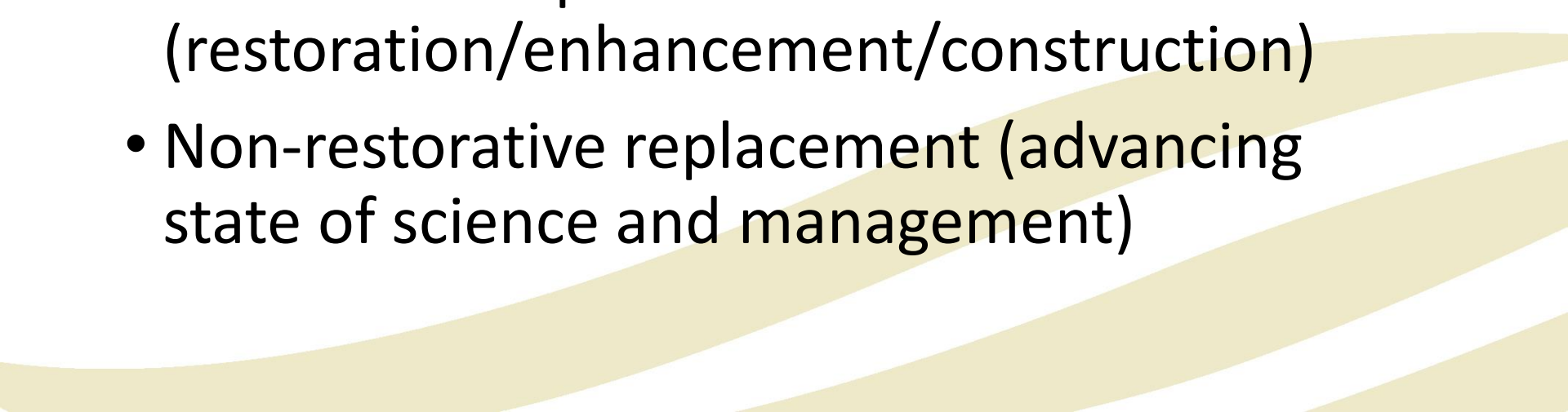
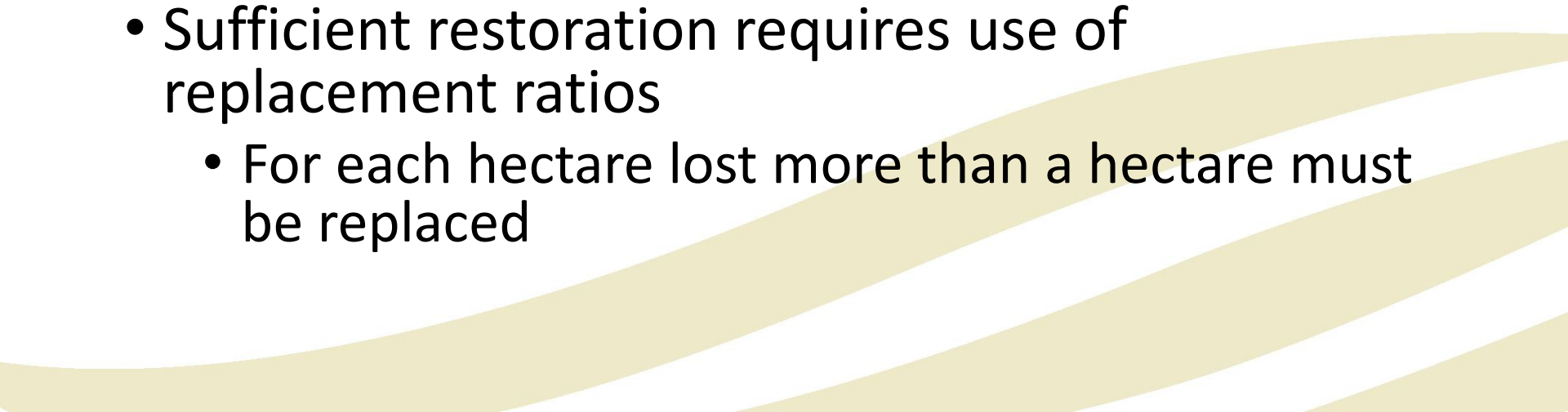


Our Task

- Through regulations such as its newly-implemented Wetland Policy, the Government of Alberta is introducing conservation offsets as a strategy for sustainability.
 - How does this system operate?
 - What questions remain around its implementation and effectiveness?
 - What alternative systems might be considered in an Alberta context?
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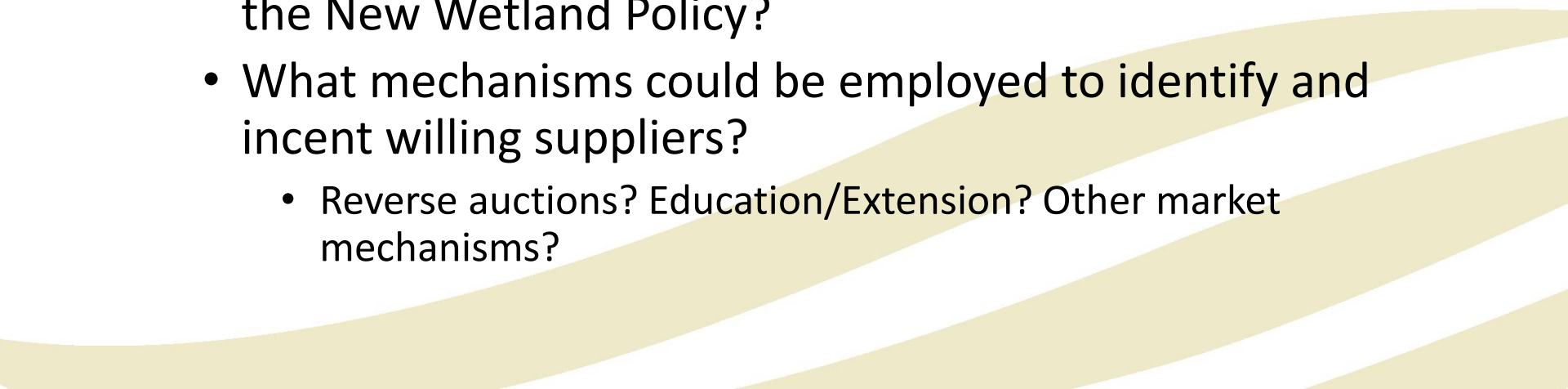
- Where avoidance and mitigation efforts are not feasible or prove ineffective, wetland replacement is acknowledged as the last resort.
 - Requirements based on:
 - Wetland area lost
 - Relative “value” of the area
 - Restorative replacement (restoration/enhancement/construction)
 - Non-restorative replacement (advancing state of science and management)
- 
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- Further division of “replacement”:
 - **In-lieu fee payment** (payment of financial restitution for wetland loss)
 - **Permittee-responsible replacement** (engagement in actual replacement)
 - Fees are collected in a fund to be used to acquire/secure basins and to implement restoration processes
 - Restoration agents to be used for the replacement
 - Sufficient restoration requires use of replacement ratios
 - For each hectare lost more than a hectare must be replaced
- 
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Offset Systems

- Demand for offsets is set by the regulator – what's the offset rule?
 - Seems well defined in this case
- *Supply* of offsets comes from society and the landscape
 - This is where a number of us have been working
- Note that *supply* is more than just a physical inventory concept
 - Also must consider the willingness of the “owner” of an impacted or drained basin to make it available to be considered as a replacement.

Questions

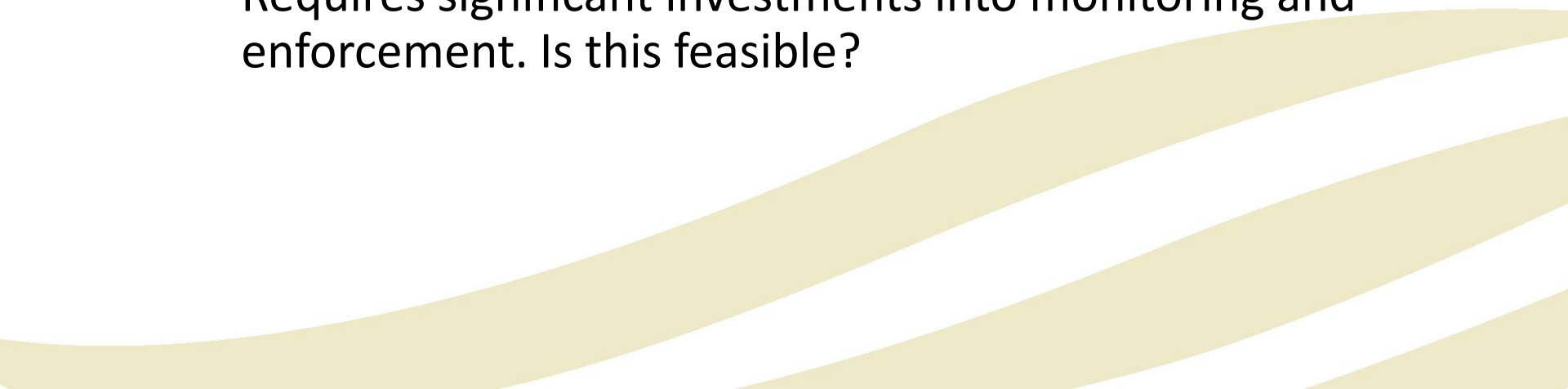
1. Is there a sufficient *supply* of drained/impacted wetlands available?
 - How will these be identified?
 - Drained inventories
 - What other information is needed ?
 - Ownership?
 - Initial quality? Predicted future quality?
 - Not only in terms of area, but also quality as defined in the New Wetland Policy?
 - What mechanisms could be employed to identify and incent willing suppliers?
 - Reverse auctions? Education/Extension? Other market mechanisms?
- 

2. What will it cost to secure basins for restoration actions?

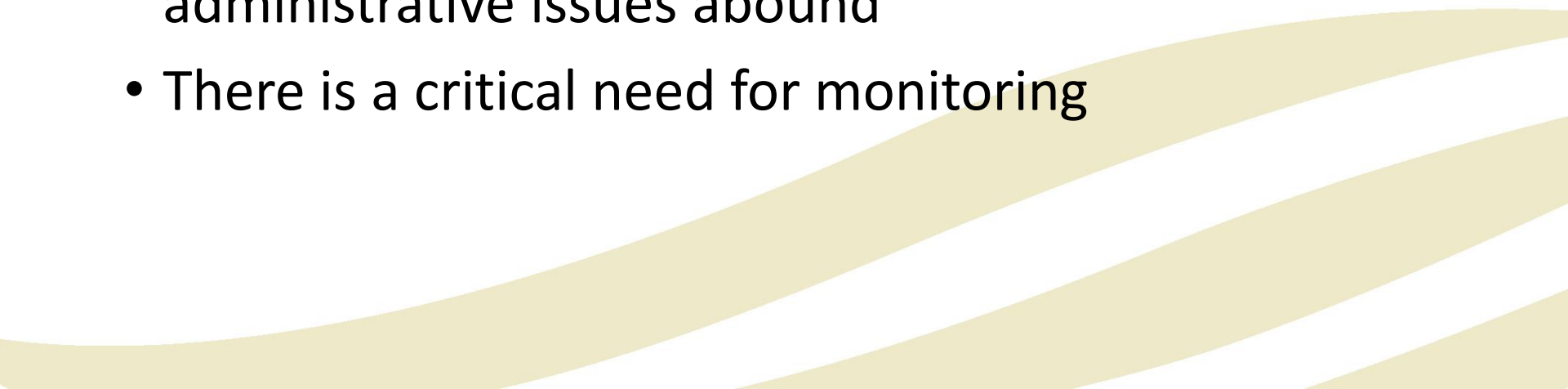
- What would be a reasonable cost and how would this be determined?
- Will costs vary spatially?
 - One size (cost) won't fit all !
 - Temporal vs spatial
- How will this cost enter into the in-lieu fee payment structure?

3. What would an agreement or contract with a “supplier” look like?

- Term? Subsequent management actions? Monitoring actions allowed?
 - Short versus long term? Level of requirements? Payment structures

4. Has there been sufficient consideration of existing legal and administrative procedures (e.g. Water Act) in the implementation?
 - Are these a help or a hindrance?
 5. Once a basin is restored what processes will be required AND IMPLEMENTED to ensure that the restored basin continues to exist and that the appropriate level of quality is reached?
 - Does the science exist to predict quality?
 - Requires significant investments into monitoring and enforcement. Is this feasible?
- 
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My Opinion

- The offset policy may make conservation scientists happy now that “quality” has been considered
 - Social and economic factors need(ed) serious attention in the design and implementation of this new policy
 - Implementation will be challenging – practical and administrative issues abound
 - There is a critical need for monitoring
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Research Funding



UNIVERSITY OF ALBERTA
Alberta Land Institute



Project Partners



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