

Citizens Restoring Congamond

Beaver Presentation

July 12, 2011



Beaver Solutions

Best Management Practices for Beaver / Human Conflicts



North American Beaver

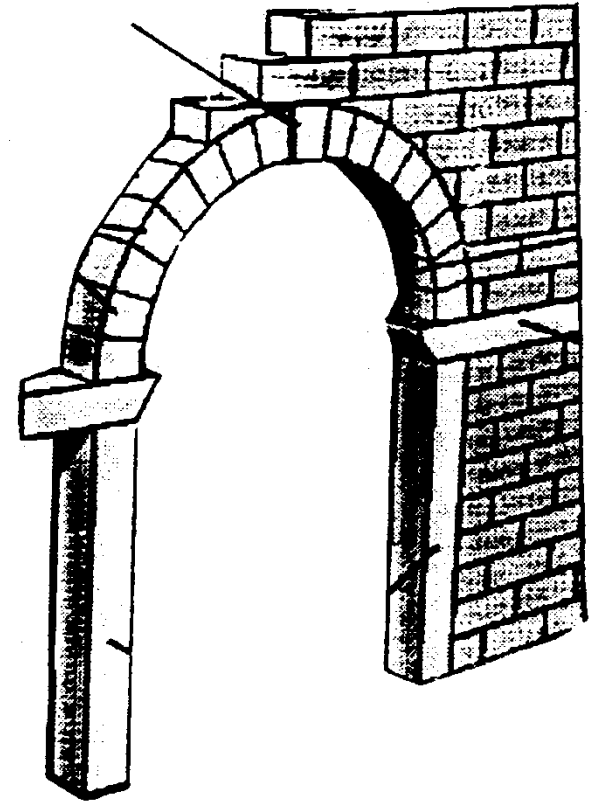


Beaver Basics

- **Largest N. American Rodent**
- **Aquatic Mammal**
- **Builds dams for safety and food**
- **“Castor Canadensis”**
- **Keystone Species**



KEYSTONE SPECIES



Keystone Species

Beaver Pond Benefits

- Promote Biodiversity
- Stabilize stream and river flows
- Reduce downstream flooding damage
- Recharge drinking water aquifers
- Remove pollutants from water
- Decrease drought effects
- Preserve open space
- Recreation (Boat, fish, hunt, trap, birding, photography, quiet relaxation)





Beaver Problems

Beaver Problems

- **Road Flooding**
- **Residential Flooding**
- **Septic System Flooding**
- **Drinking Water Threat**
- **Agricultural Land Flooding**
 - **Loss of Trees**

Management Options

- **Trapping**
- **Dam Breaching**
- **Beaver Dam Pipes**

Culvert Protection
Tree Protection



Permit Process

Board of Health – Threat exists?

10 Day Emergency Permit

- 1. Trapping**
- 2. Dam Breaching**
- 3. Flow Device**

Need Cons. Comm. permit for #2 or #3



Beaver Trapping



Beaver Trapping

- **Historic approach**
- **Animals killed**
- **Beaver benefits lost**
- **Short-term solution**

Flow Devices





Back and Forth



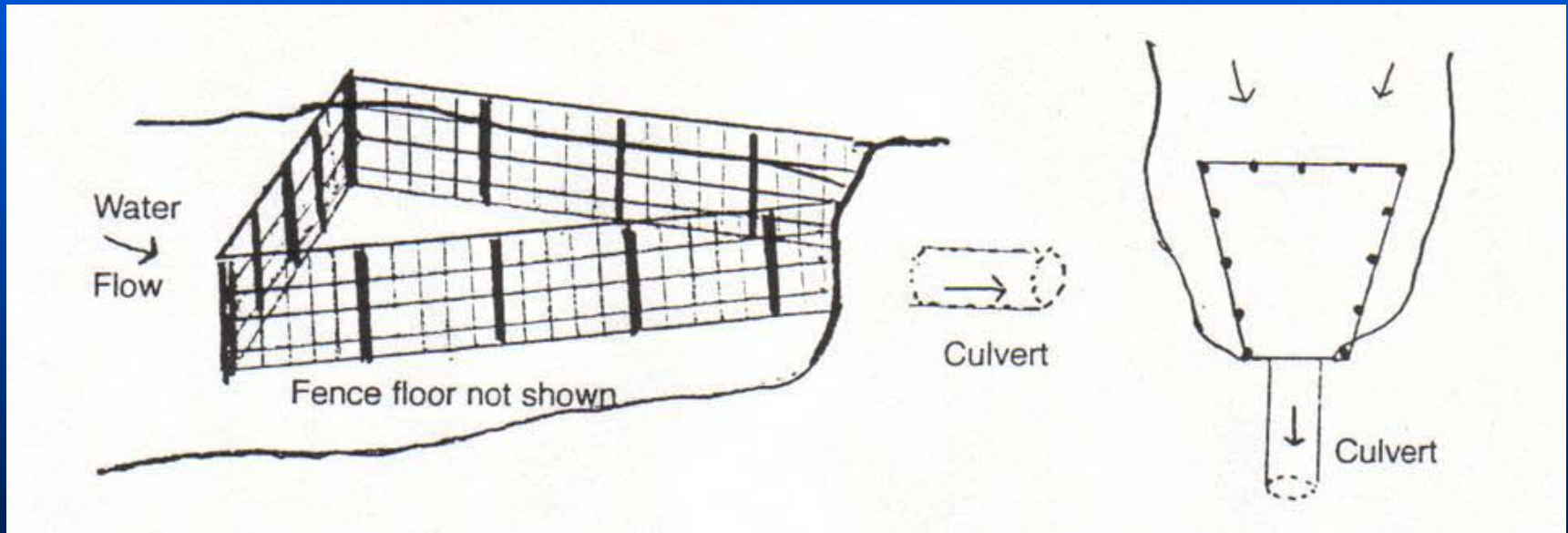
“Busy as a Beaver”





Culvert Protection

Trapezoidal Fence Diagrams









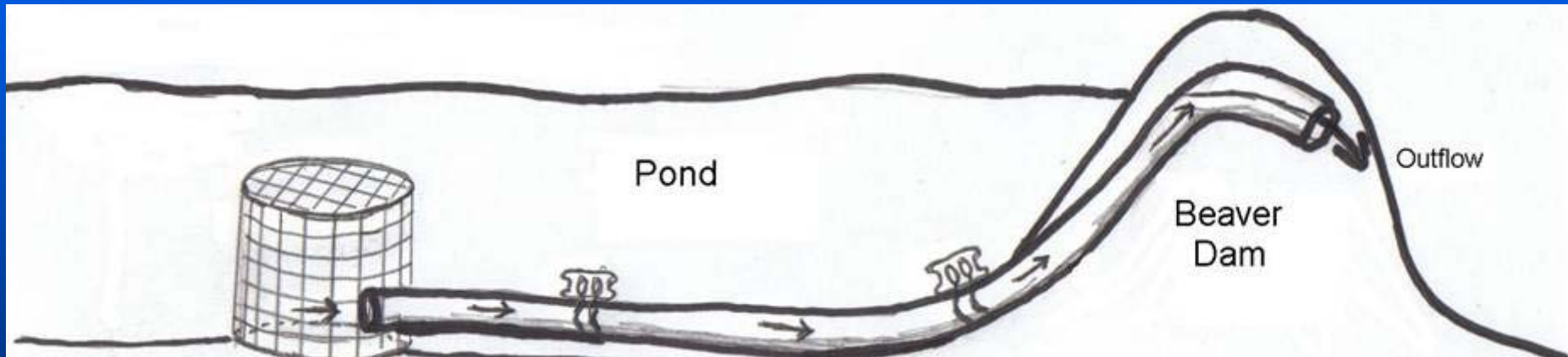




BEAVER
SOLUTIONS



Flexible Pond Leveler Diagram



Note: The height of the pipe controls the pond level





BEAVER
SOLUTIONS





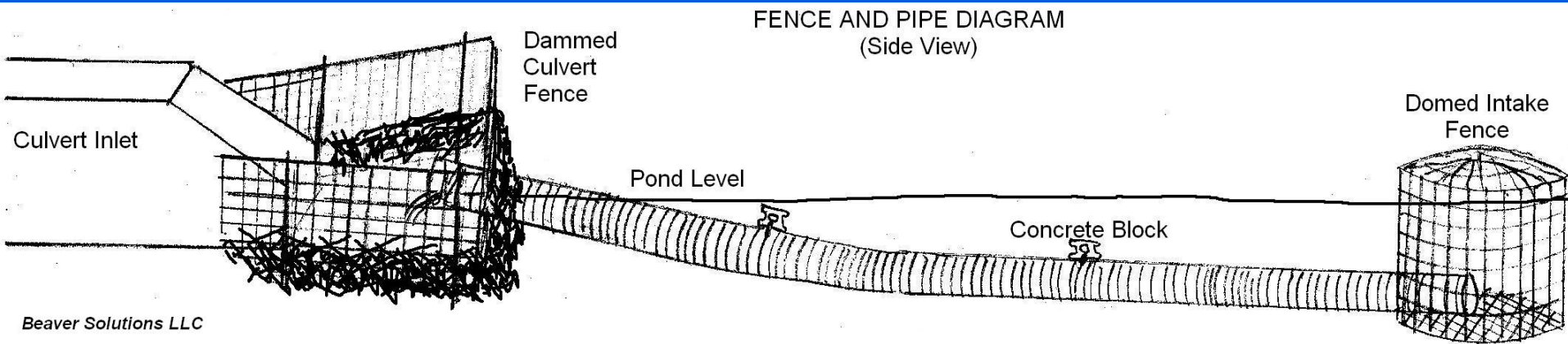








Fence and Pipe Diagram



An ideal way to protect culverts





7 Years Later

Success Rates

Trapping Success Rates

- **6 months – 80%**
- **12 months – 60%**
- **2 years – 25%**

Sample size – Over 100 sites

Culvert Protection Success Rates

- Culvert Protective Fences

- 98% effective

Sample size - Over 150 sites

- Pipe and Fence Devices

- 99% effective

Sample size - Over 150 sites

Flexible Pond Leveler

Success Rates

- **Over 90% Success Rate**
 - **Most failures (7%) due to new dams.**
 - **High flow issues (2%)**

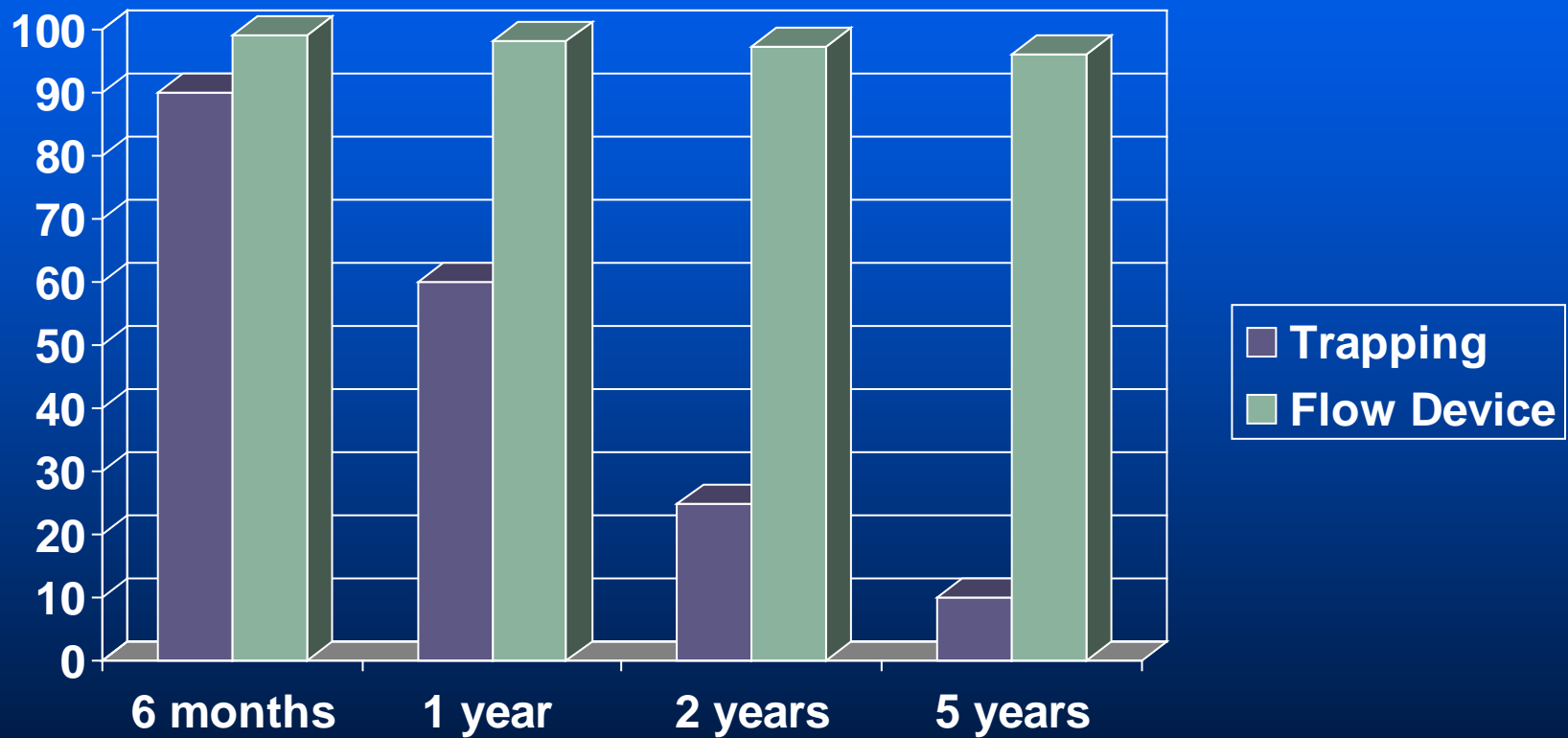
Sample size – Over 300 sites

Flow Device Benefits

- **Excellent success rate**
- **Long term results**
- **Cost-effectiveness**
- **Improved safety**
- **Least negative impact**
- **Preserve habitat**
- **Low maintenance**



Trapping v. Flow Device Study



Sample Size – Over 500 sites

Summary

- Keystone Species, many benefits
- Problems can be solved with:
Trapping, Flow devices, Tree protection

Most successful when we work with nature rather than against it.



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