

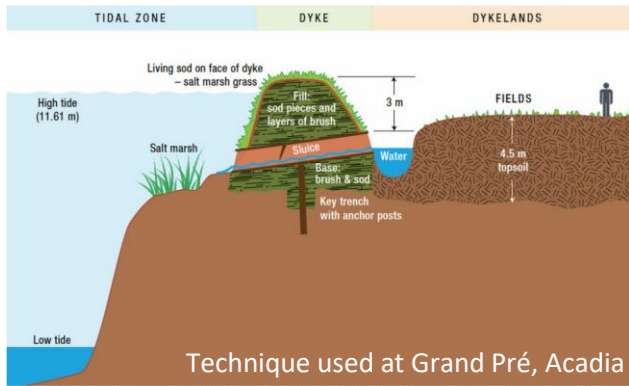
Acadiology: Reinventing Acadia's Water Management Methods

Using Aboiteaux, Dikes, and Polders ("ADP") to capture more upland rainfall before it storms to the sea
 Creating new jobs, public procurement, and other ecological and economic opportunities across the world



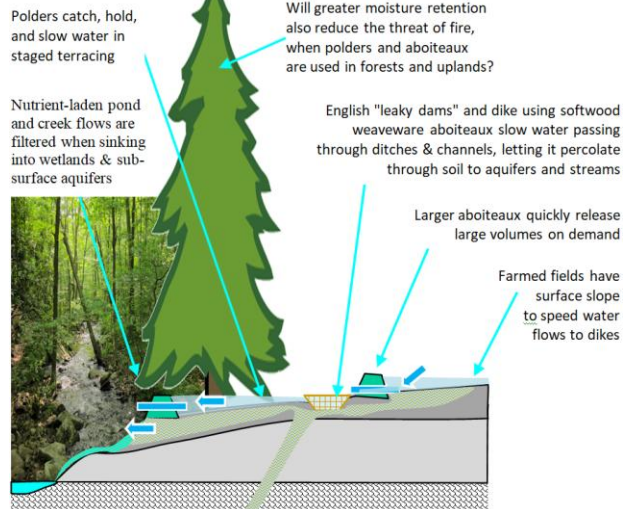
A. THE ANCIENT ACADIAN TECHNIQUE

Using the ancient technique, here in reverse, to help nature slow surface flows in upland areas.



(Figure 2-25) Illustration of a cross-section of the dykelands at Grand Pré, including the tidal range, salt marsh, aboiteau system and fields.

B. COULD THIS SAFELY SLOW WATERSHED RUN-OFF?



C. CONCEPT for THE WORLD: NEW TRADES

New industry with thousands of new jobs

- Local knowledge and skills for maintenance
- Summer jobs for thousands of students

Trades' Certifications & Certificates

- Master Upland Polderer
- Upland Polderer Supervisor
- Apprentice Polderer
- License: Prov. Polder, Dike, & Aboiteaux Builder
- License: Prov. Polder, Dike, & Aboiteaux Inspector
- License: Prov. Softwood Weaveware Production
- License: Upland Watershed Run-Off Management

Concept: Mission-driven Technical Training

- Technical College Training programs
- Canada: Regional Programs:
 - Atlantic
 - Quebec
 - Ontario
 - Prairies/Pacific

Evangelizing / "Evangeline"-izing*

- Teach nationally and internationally
- Cross-cultural low-impact eco-tech exchanges

D. CELEBRATING OUR COMMON HERITAGE

Celebrate ancient Acadian/French/Dutch heritage

- A method to build national capacity
- A new international 'water capture dialogue'



Canada



The Netherlands



Louisiana
Massachusetts
Maine



France

E. USEFUL FOR MANY COUNTRIES?

Research is needed to assess effectiveness/risks

Softwood Off-Cuts: Useful in dike weaveware?

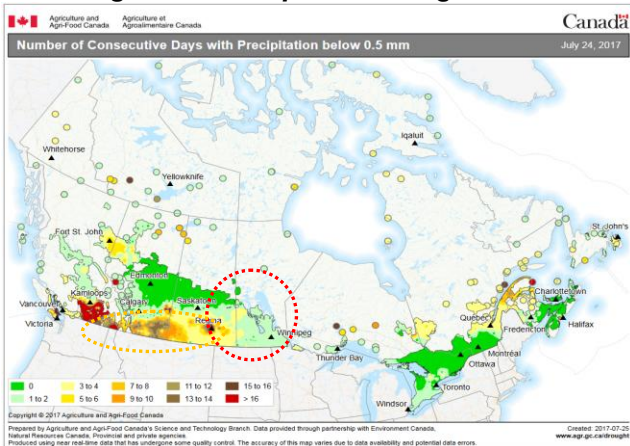
"Weaveware" = natural materials refashioned into a baffle laid in the heart of the barrier

- Restrict use to domestic weave applications
- Domestic softwood off-cuts should not be treated
- Banned from export to protect foreign forests from any cross-contamination risks
- Off-cuts should not be charged a disposal fee as this is recycling into a useful ecological product

* Note the tourism opportunities that parallel what *Anne of Green Gables* has done for PEI, Canada

E. IMPLICATIONS

Directing waters to aquifer recharge



Method is adaptable to a wide variety of landscapes
ADP materials will be locally site-sensitive

Concept: Forest Fire Prevention Tax Credit (FFPTC)

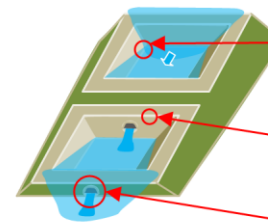
- Annual Federal Tax Credit to re-use woodland ignition sources
 - Obtained by property owners in provinces and territories
 - Designed to produce moisture retention and fire breaks
 - FFPTC = Base Calculation + Certified Proof of Work Performed
- Note: Would not include controlled burns for fire management*

Concept: Aquifer Recharge Tax Credit (ARTC)

- Annual Federal Tax Credit for measureable contributions
- Assigned to property owners in provinces and territories
- Aquifer recharge is the service provided by the landowner
- Service provided to public bodies (Federal Crown, First Nations)
- ARTC = Base Calculation + Certified Proof of Work Performed

Infrastructure Spending

Here, Dike Height might range from several metres down to as low as 10cm or less



Polder (drained field; Here, the upland side only shown to explain polder method)
Dike (barrier wall)
Aboiteau valve drain system

Angled view
 exaggerated to show details

- ADP concept reinvents the historic Acadia technique
- Will the solution concept aid cities and recharge regional aquifers?
- May solve a threatening, clear and present danger to water supply
- Creating thousands of jobs and certification at many labour points
- Training expertise that is exportable to neighbouring regions
- Training expertise for international students and agencies

Precipitation Water Capture & Protection

- Could this enlist landowners to protect vital water resources?
- Could thousands of local owners obtain multi-decade contracts?
- Or, ADP tax credit contracts assigned to property as an easement?
- Protectable domestic supply chain method to protect watersheds?
- New income for millions of small farms and property owners?

Concept: "Acadieology" Surface Waterflow Maintenance

- Weaveware = steady procurement?
- Each Province, Region, or State creates Weaveware contracts?
- Producing steady domestic demand for manufactured Weaveware?
- New domestic supply to public and private domestic markets?
- Locally ecologically restricted to protect local flora & fauna?



Public Water Assets - Concept Note for Canada

- Water would not be redefined as private property
- Easement defined as not able to be owned by foreigners
- FFPC and ARC income not claimable by foreigners
- Easement Stewardship Responsibility continues in perpetuity
- Tax Credit income reverts to Crown when a foreign-controlled corporation acquires control of real property receiving drainage and/or discharge

Sources:

ADP History

<http://www.landscapeofgrandpre.ca/the-acadians-and-the-creation-of-the-dykeland-1680ndash1755.html>

<https://sencanada.ca/en/senators/poirier-rose-may/> re: [Government media release](#) (2010)

Hatvany, Matthew G., The Origins of the Acadian Aboiteau: An Environmental-Historical Geography of the Northeast, Historical Geography, Volume 30 (2002): 121-37 <https://ejournals.unm.edu/index.php/historicalgeography/article/download/2983/2462> cf. Matthew G. Hatvany: Assistant Professor, Geography, Université Laval: Sainte-Foy, QC <https://2ulaval.academia.edu/MatthewHatvany>

Climate

<http://www.agr.gc.ca/DW-GS/current-actuelles.ispx?lang=eng&jsEnabled=true>

Photo: "Cowichan Water" - Wildflower beside Water

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