

Wetland Protection: Past Experiences, Future Directions

ABNAWMP Forum
March 18, 2014



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What does protection really mean?

The word "protect" is derived from Latin *pro* (before) and *tego* (to cover).

It means "to cover or shield from danger or injury."

In other words, if something is protected, it means it is safe from impacts that will harm it.



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Existing Tools:

- *Water Act*
 - *Public Lands Act*
 - *EPEA*
 - *Conservation Easements*
 - *Purchase*
 - *Revolving Land Purchase*
 - *Wetland Restoration Lease Program*
 - *Protective Notations*
 - *LOCs*
 - *Several tools in MGA*
 - *Recommendations in IWMPs*
- Legislation*
- DUC Programs*

LOTS OF TOOLS!!

Other Legislation:

Migratory Birds Convention Act

Migratory Birds Regulations

Fisheries Act

Convention on Wetlands of

International Importance (Ramsar

Convention)



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How are we currently protecting wetlands in Alberta?



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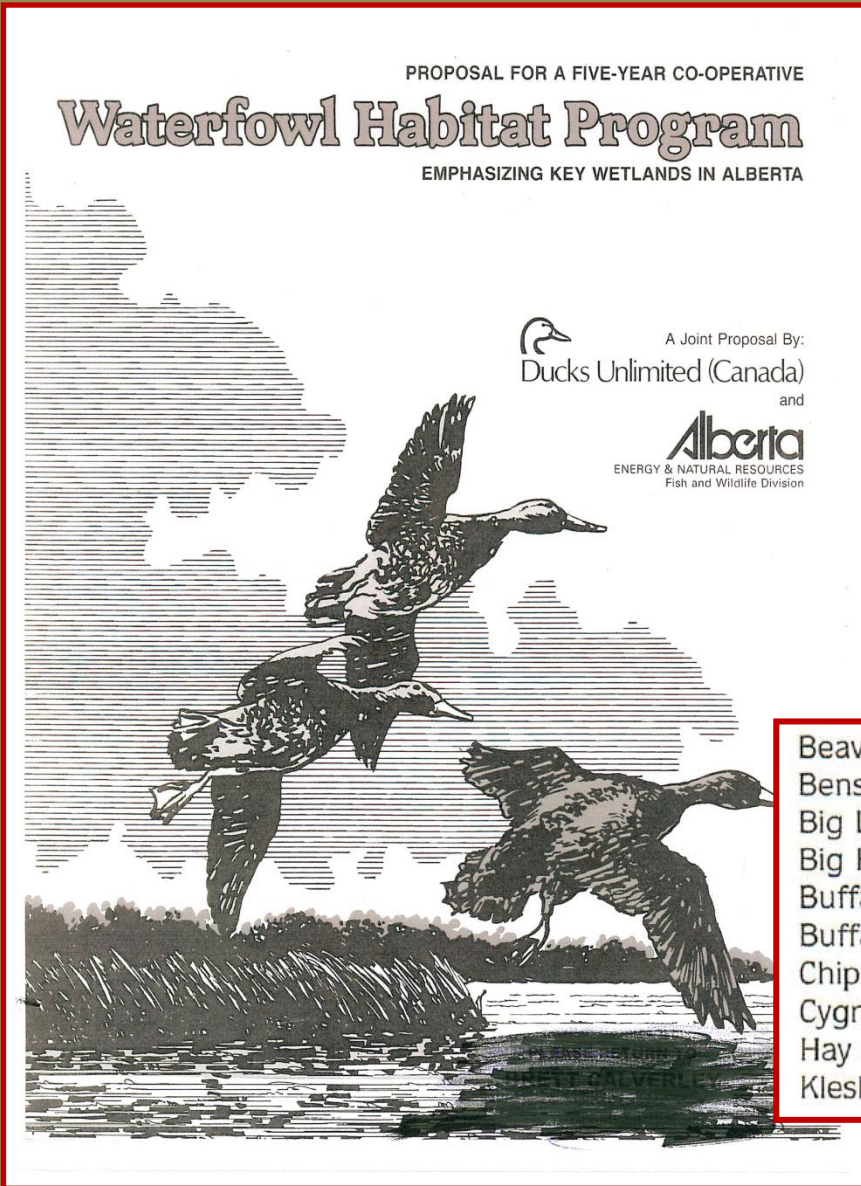


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**In addition to ESRD's lead role,
several agencies have been doing
wetland protection for a long time
including:**

- ***NCC***
- ***ACA***
- ***AF&G***
- ***ABNAWMP***
- ***DUC***
- ***municipalities***

Wetlands for Tomorrow



- 1980's partnership between DUC and AB Fish and Wildlife .

Objective of protecting and restoring key wetlands (large)

The List of identified key wetlands

Beaverhill Lake
Bens and Watt Lakes
Big Lake
Big Hay and Bittern Lakes
Buffalo Bay and Heart River Marshes
Buffalo and Spotted Lakes
Chip Lake
Cygnet Lake
Hay and Zama Lakes
Kleskun Lake

Little Red Deer Marsh
Manawan Lake
Many Island Lake
Marion Lake
Peace-Athabasca Delta
Stirling Lake
Tyrrell and Rush Lakes
Utikuma Lake
Vauxhall Marsh Complex
Whitford and Rush Lakes

Big Hay Lake



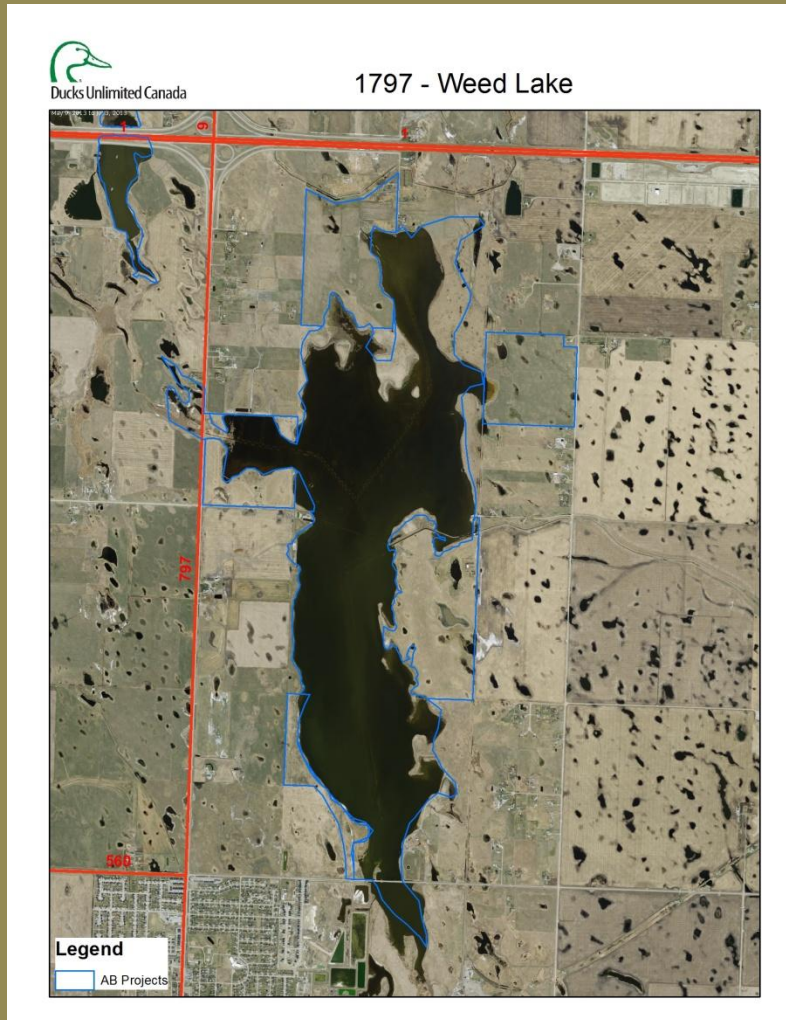
- Situated near town of Hay Lakes
- Wetlands for tomorrow project
- Partner project with GOA (AESRD, Infrastructure)
- 2200 acre protection/ restoration of large marsh

Manawan Lake



- Situated NW of Morinville
- Wetlands for tomorrow project
- Partner project with GOA (AESRD) and Manawan Lake Drainage District
- 2700 acre protection/ restoration of large marsh
- identified as an Important Bird Area

Weed Lake



- Situated near Langdon (east of Calgary)
- Wetlands for tomorrow project
- Partner project with MD of Rockyview, WID, ABNAWMP and DUC
- 1500 acre protection/ restoration of large marsh

What About Protecting Small Wetland Complexes?

Hold that thought



So how's the current approach working here in Alberta?



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WETLAND LOSS

In Alberta approximately 64% of wetlands have been lost in the settled area (white zone).

Losses continue at about 0.5% annually.

Comparatively, 0.4% of the Amazon rainforest is lost annually.



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***Over the last 10 years in the Prairie
Pothole Region of Canada ...***

***We have lost, on average, 80 acres per
day***

***We have restored, on average, 14 acres
per day ...***



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**That means that for every acre
we restore**

we lose 5.7



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Why?

- ***High commodity prices,***
- ***increasing development pressures***
- ***Society hasn't traditionally valued wetlands***



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But there's a flip side too:

- ***The ES of wetlands are being recognized and valued now***
- ***The concept of social license and branding is becoming more prevalent – and wetland conservation is a big part of that***



Wetland Preservation Statement

Striving for sustainability embraces a long-held value in agriculture; good stewardship means leaving the land in better condition than when you began managing it. In the spirit of this value, Canadian Fertilizer Institute, CropLife Canada, Ducks Unlimited Canada, and Soil Conservation Council of Canada are pleased to announce a shared policy position that as Canadians we must protect our wetlands in agricultural landscapes. We are proud of the monumental efforts of previous generations of farmers. Without their commitment to increasing the productivity of Canada's soils we wouldn't be able to produce high-quality crops for domestic and international markets around the world. However, as new technology and scientific knowledge develops the entire value chain must constantly re-evaluate established agricultural production practices in light of constantly evolving agronomic and environmental forces.

Canadian Fertilizer Institute, CropLife Canada, Ducks Unlimited Canada, and Soil Conservation Council of Canada recognize that markets are demanding agricultural productivity gains from a consistent land base. This growth cannot occur at the expense of further loss of wetlands and their important value in the ecosystem. Rather, the solution to productivity gains should continue to be achieved through science-based agricultural innovation. Products such as GM crops, pesticides, controlled-release fertilizer and crop varieties derived through modern plant breeding techniques combined with conservation tillage and nutrient management following the 4R principles will all help Canadian farmers increase their production intensity without the further loss of wetlands.

Just as conservation tillage has dramatically reduced soil erosion; stopping wetland drainage will dramatically reduce the risk of crop input run off. Protecting wetlands will not only help preserve water quality and increase biodiversity of species in our rivers and lakes, it will also help ensure Canadian agricultural production remains viable for the long term. By protecting wetlands, we will be regarded as leaders in sustainable agriculture practices and our products will continue to be preferred by discerning consumers around the world.



So where to from here?



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***What Does the New Alberta
Wetland Policy Provide to
Enable Protection?***



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Policy Outcome #1:

*“Wetlands of the **highest value** are **protected** for the benefit of all Albertans”*



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Notice it doesn't say all wetlands are going to be protected, just the ones of highest value.

The rest will be subject to the other options in the mitigation hierarchy.



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So in order to decide which ones are going to be protected, we first have to define "value" and then figure out which ones are the "highest value"



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How we get to value ...



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Wetland Parameters:

Processes:

The physical, chemical or biological activities that occur within a wetland



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Wetland Parameters:

Functions:

The outcomes of the processes ie., the things wetlands DO



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Wetland Parameters:

Benefits:

*The results of the functions that we consider valuable to
us*



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Wetland Parameters:

Values:

The perceived importance society assigns to the benefits



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Functions + Benefits = Value



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What's the big deal about value?

Not much except ...

*Our new provincial wetland
policy is based entirely on
value!*



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***What else does the new policy
say? ...***



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***“The primary and preferred response is
to avoid impacts on wetlands”
(Alberta Wetland Policy)***

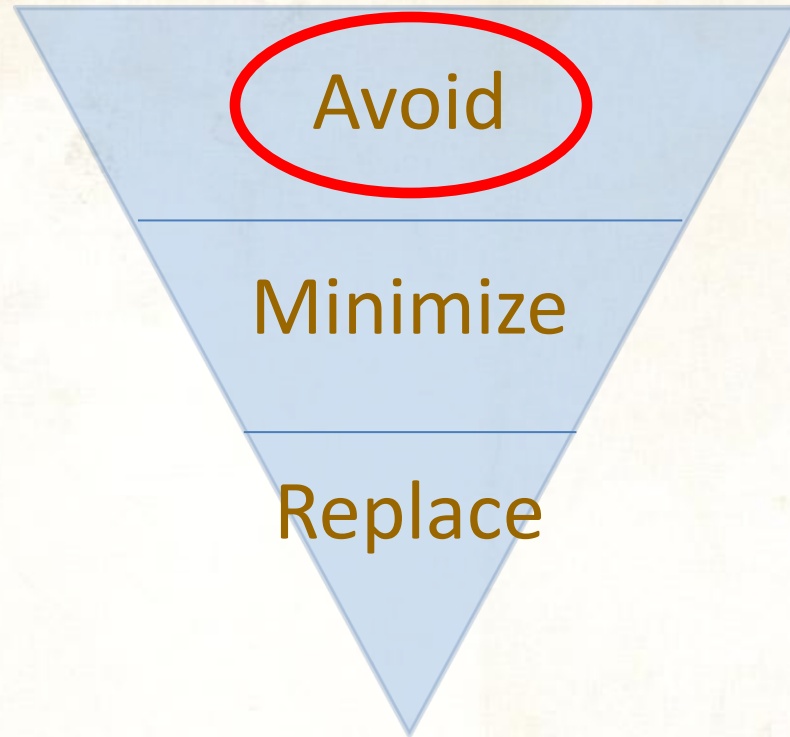


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The Wetland Mitigation Process:



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Avoid –

“To prevent impacts to a wetland by identifying an alternate project, activity, design, or site, or abandoning the project or activity altogether or by denial of an application by the regulator”

(Alberta Wetland Policy)



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***So really, Protection and Avoidance
are, for all intents and purposes, the
same thing.***



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And, as we already pointed out, the new policy has an increased emphasis on avoidance



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***So we now have some much needed
clarity going forward thanks to ESRD!***



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For the sake of today let's assume that our friends at ESRD will work things out at a provincial scale.

Where we will really see outcomes relevant to us is at the regional/local scale, and we have a lot of say in that!



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So Back to Protecting Small Wetland Complexes



Our challenge:

Despite pretty good success protecting large, permanent wetlands, the vast majority of our past and ongoing wetland loss is the cumulative loss of smaller, often less permanent ones.



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But wait, there's hope!

“Within Alberta, Cumulative Effects Management has become an environmental management priority through the *Alberta Land Stewardship Act* and the *business plan priorities of AENV and other departments.*” (ES of *Wetlands Pilot*)



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**In many ways, wetlands are the
“Poster Child” of cumulative
effects**



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How?

- *The cumulative benefits , (including flood attenuation, water quality improvement etc.) of existing wetlands are significant*
- *The cumulative impacts of wetland loss are substantial*



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While the impacts of our decisions regarding wetlands are cumulative in nature, our thinking is not, meaning a series of “one off” decisions has resulted in ongoing wetland loss.



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**That's how we've
unintentionally gotten to where
we are today**



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**But in keeping with the
approach of “Glass Half Full
Barr”, I want to focus on
opportunities
today!
And we have many!**



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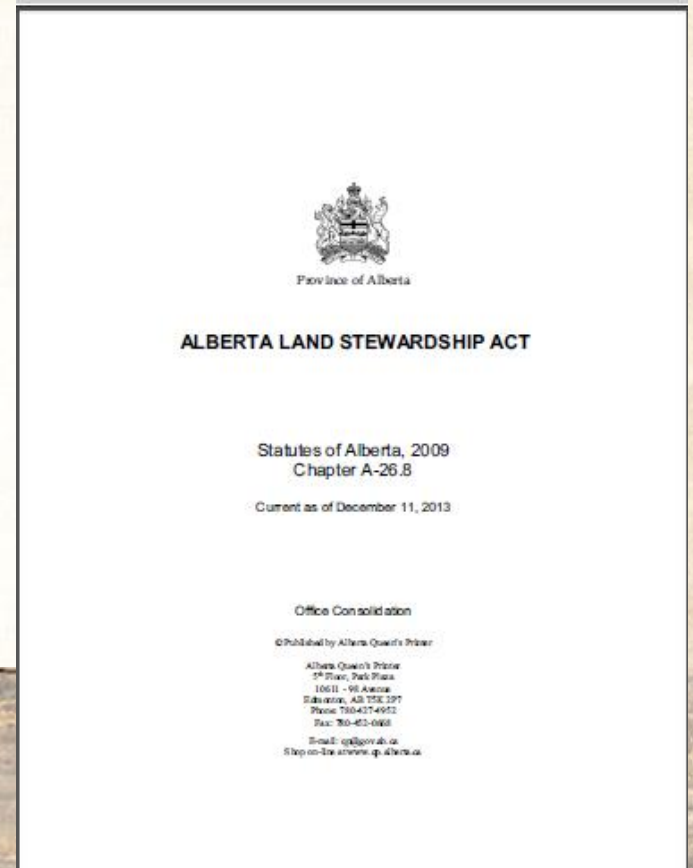
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Opportunities:

In addition to the existing tools, under ALSA we have increased opportunity to deploy:

- *Conservation Easements*
- *Conservation Offsets*
- *Conservation Directives*
- *TDCs*

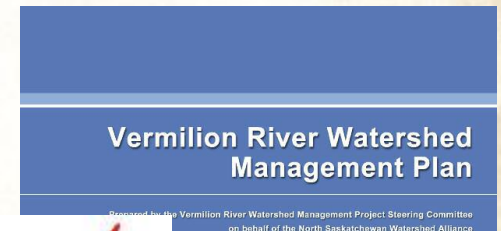
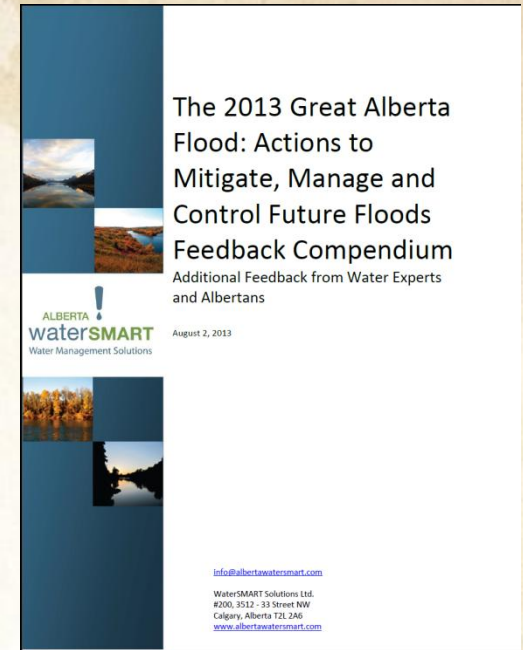
In Regional and Sub-Regional Plans



Opportunities:

And we have many partner opportunities:

- *Canadian Cattleman's Association Round Table for Sustainable Beef*
- *IWMPs*
- *Regional & Sub-regional Plans*
- *Municipal Plans*
- *Flood mitigation strategy*
- *Etc!*



North Saskatchewan Watershed Alliance



At the local level the MGA grants municipalities many powers that relate to wetlands management.

These powers are (or can be) embedded in Statutory Plans:

- *Municipal Development Plans,*
- *Area Structure Plans and*
- *Land Use Bylaws*

**So our opportunities to protect
wetlands using existing and new
tools are numerous**



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Food for thought:

Knowing the opportunities, how can we work together to achieve even greater success relating to wetlands protection?



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Food for thought:

**Do we have what we need or do
we need more tools and
resources?**



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Food for thought:

If so, what are they?



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Food for thought:

**Do we have enough information
to determine which wetlands
should be protected?**



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Food for thought:

**Do we have the right players
involved?**

Are we missing anyone?



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And finally:

**How does education, research
and the broader application of
management support wetlands
protection?**

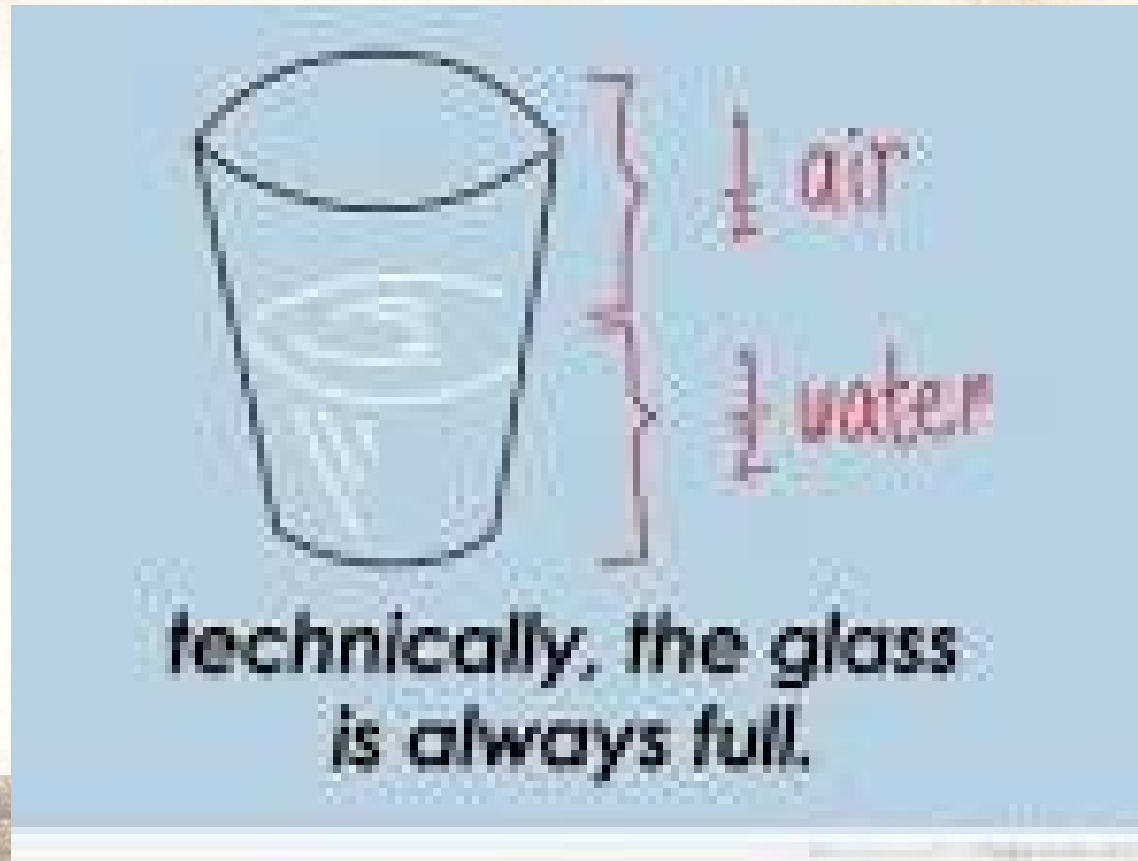


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**And just to throw a curve at
Mike ...**



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Thank You!



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