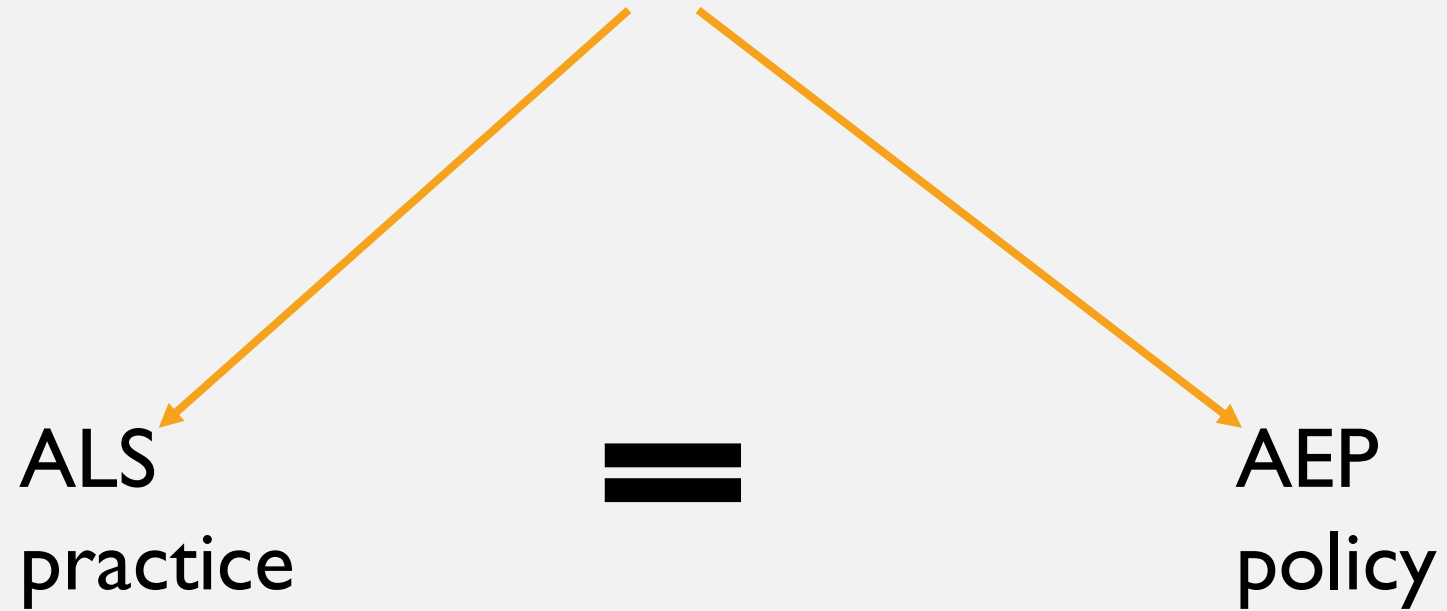



WATER BOUNDARIES: KEEPIN' IT REAL

Eclipse College – January 20, 2021

Dr Brian Ballantyne
brian_ballantyne@hotmail.com
BoundaryIntelligence.ca

Riparian boundary principles

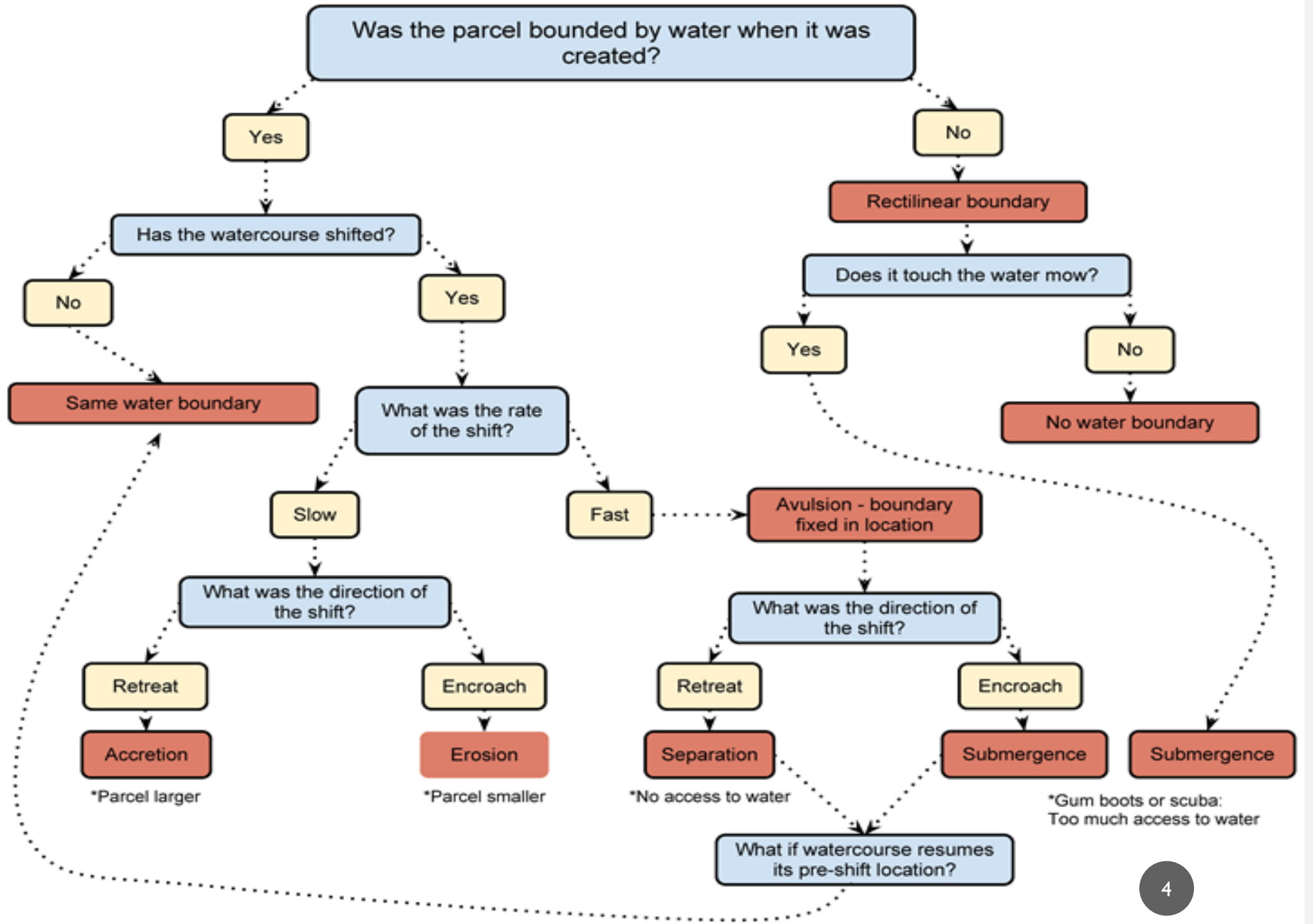




CUNNING
MÉLANGE OF
PRINCIPLES
& ISSUES

- **Is it a riparian parcel?**
 - Is it a watercourse or a mere wetland?
 - Where was the boundary at time of parcel creation (Crown patent, subdivision)?
 - North Saskatchewan River
- **Where is the bank?**
 - Wabamun Lake
- **Is it accretion?**
 - Lake No 4
- **How is accretion to be apportioned?**
 - Sandy Lake

ONE WICKED FLOWCHART



3 STATUTES & 6 CASES*

- **Statutes**

- Public Lands Act, s3
- Surveys Act, s17
- Land Titles Act, s89

- **Cases**

- Clarke v City of Edmonton (SCC – 1930): twice (bank & accretion)
- Robertson v Wallace (ABQB – 2000)
- Johnson v Alberta (ABCA – 2005)
- Andriet v Strathcona County (ABCA – 2008; ABQB – 2010)
- Matichuk v Quattro Holdings (ABCA – 2013)
- Erik v McDonald (ABCA – 2019)

* Gazillion bonus cases!



Surveyor's opinion of bank:

- "the ordinary summer mark;"
- "during the summer months when the waters recede;"
- "after the great flow of the spring has abated."



*PUBLIC LANDS ACT,
S.3*

Alberta has title* to the beds and shores of:

- all permanent and naturally occurring bodies of water, and
- all naturally occurring rivers, streams, watercourses and lakes.

Body of water = slough

Watercourse =

- Source (inflow)
- Outlet (outflow)
- Gradient (slope)
- Banks (cross-section geomorphology)

It must have at least 3 characteristics

A PUDDLE IS NOT PUBLIC

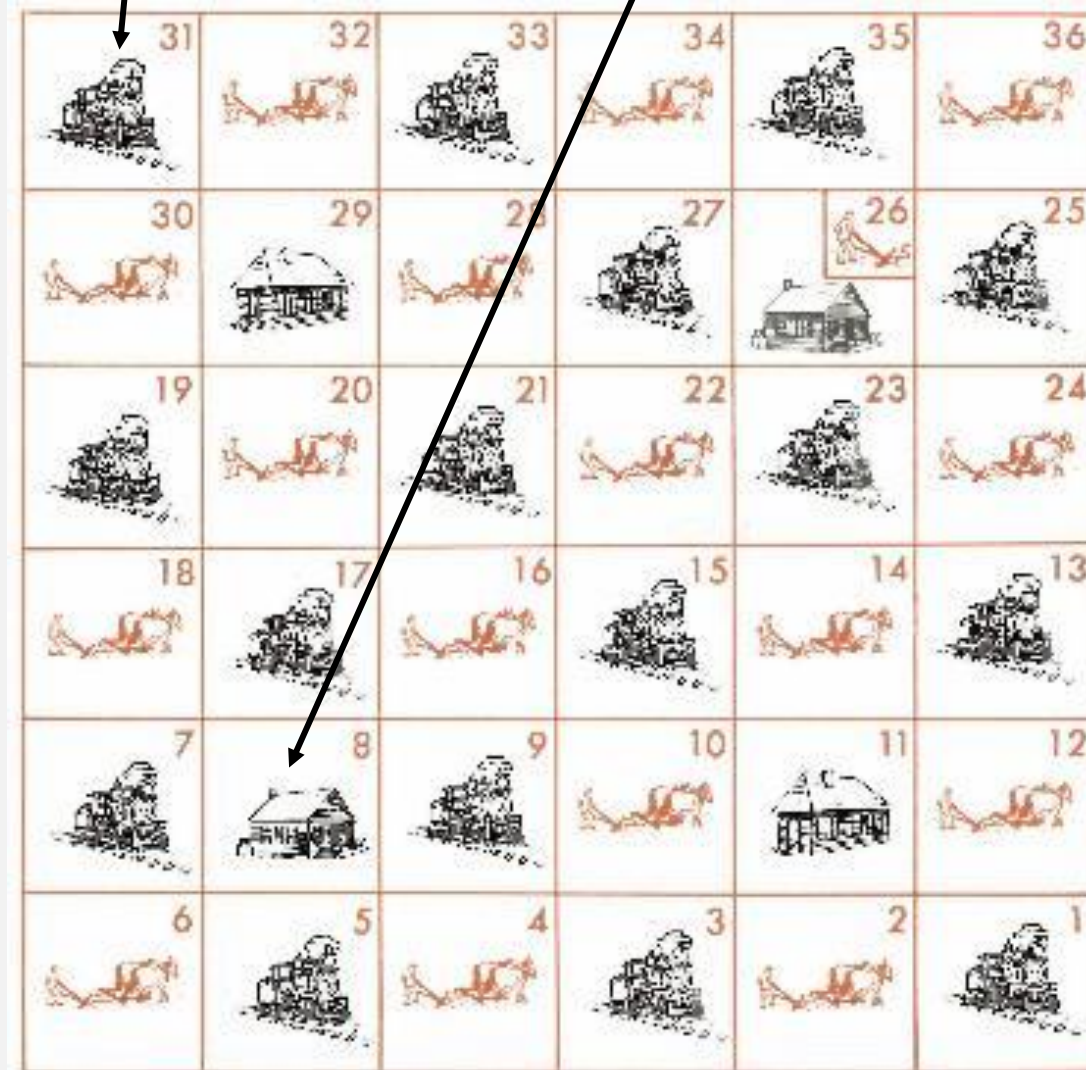
MATICHUK V QUATTRO HOLDINGS (ABCA – 2013)

“There are no defined banks here, and a body of water is not the same as wet, soft, swampy earth. A puddle is not public ... A watercourse or stream is the opposite of a swamp because the latter does not flow.”

16 ac of wetland (not watercourse) = \$1,400,000

Wetland (marsh, swamp, bog, fen) = upland!

CPR = 25M ACRES; HBC = 7M ACRES



*EXCEPTIONS

Section 3 of *Public Lands Act* “does not affect the title of land belonging to **Canada**” (e.g. First Nation Reserves)

AB does not apply s3 to **HBC lands** (S8 & part of S26)
- AEP Policy: *Exceptions to the Crown's Ownership*

Does AB apply s3 to **CPR lands**?

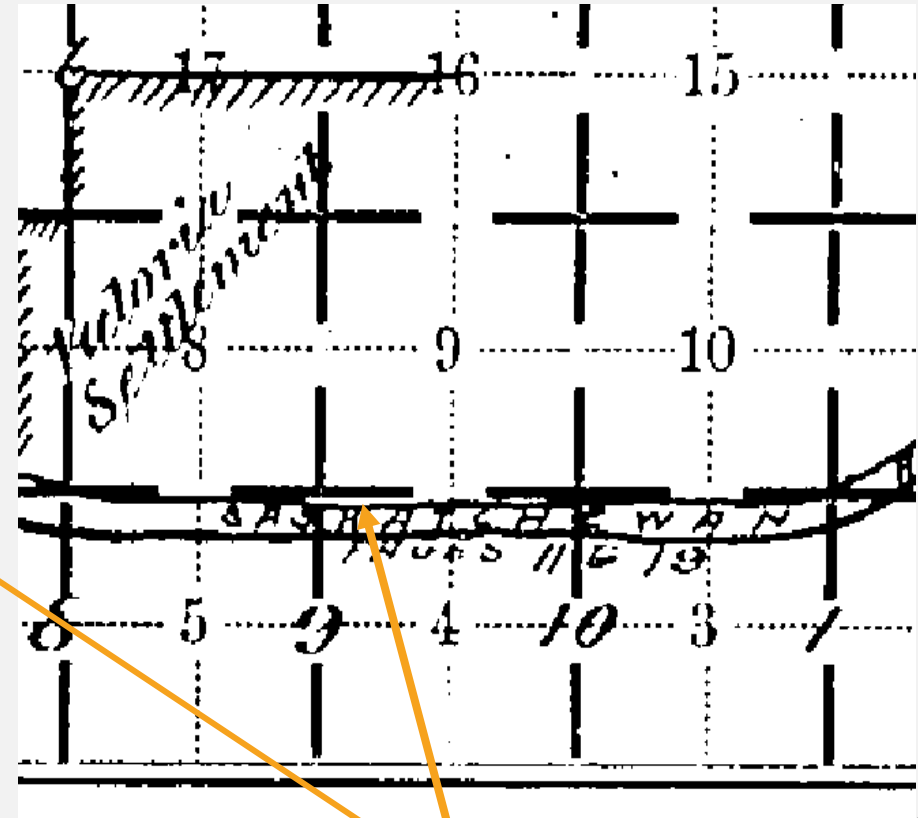
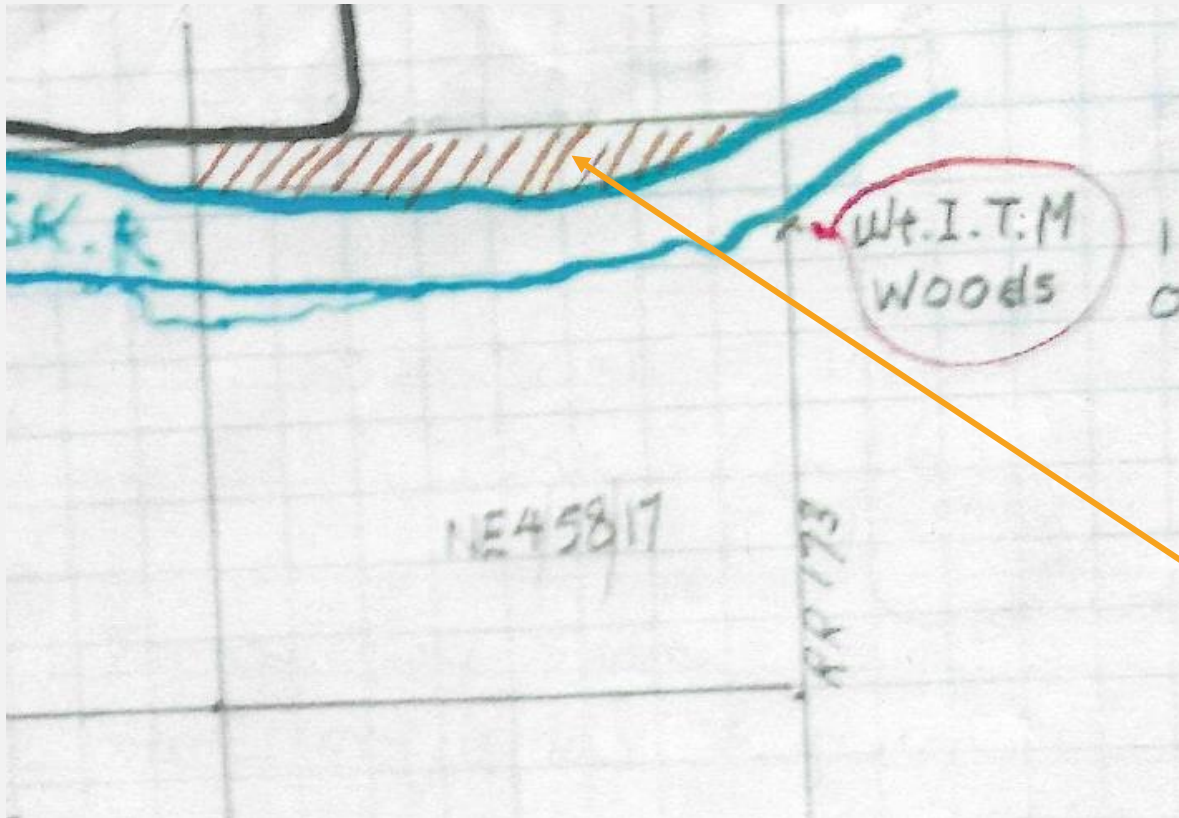
Probably not:

- Consistent with “existing agreement or undertaking” (i.e. *CPR Act*);
- SK precedent (ISC GO-07/001);
- AB with no formal position (“It’s a real grey area” - June/13)!

BOUND = AT TIME OF PATENT/TRANSFER
(NOT AT TIME OF SURVEY/PLAN)

- “Riparian rights exist at the time of the original Crown grants”
 - *Lack v AB*, 2011
- Plan is “overridden by the text of the grant and title”
 - *Andriet v Strathcona Cty*, 2008
- “The boundary was not frozen in time by the survey referenced in the plan”
 - *Robertson v Wallace*, 2000
- “The test is whether the land in fact comes to the water’s edge under the grant and not upon the manner of land description within the grant”
 - *Chuckry v MB*, 1972
- “The location of the bank at the time of grant”
 - *AB. Natural Boundaries*. 1989.

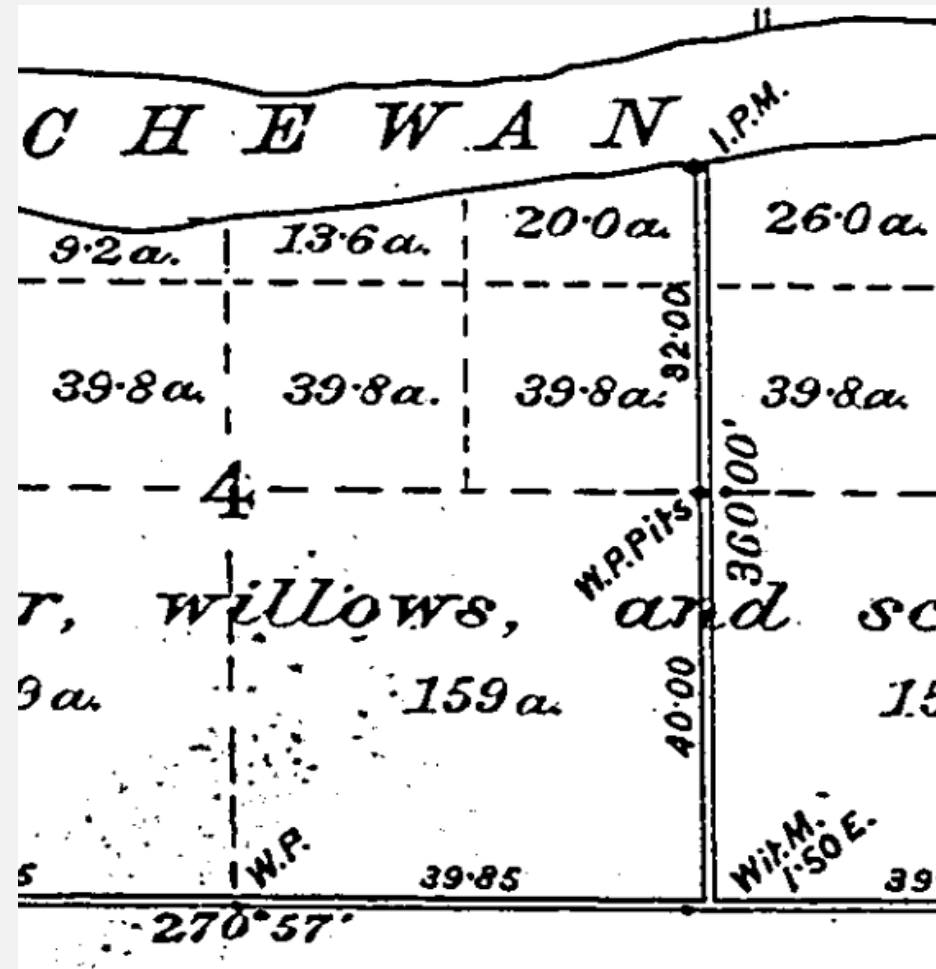
REAL STUFF #1 - IS THE PARCEL RIPARIAN?



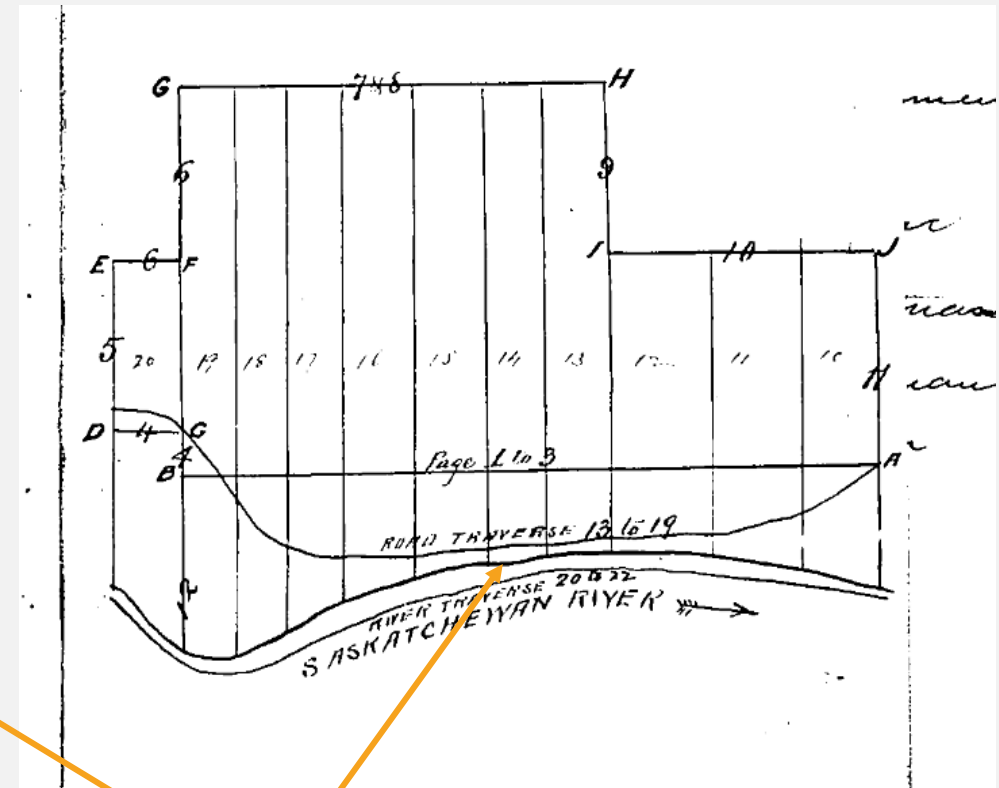
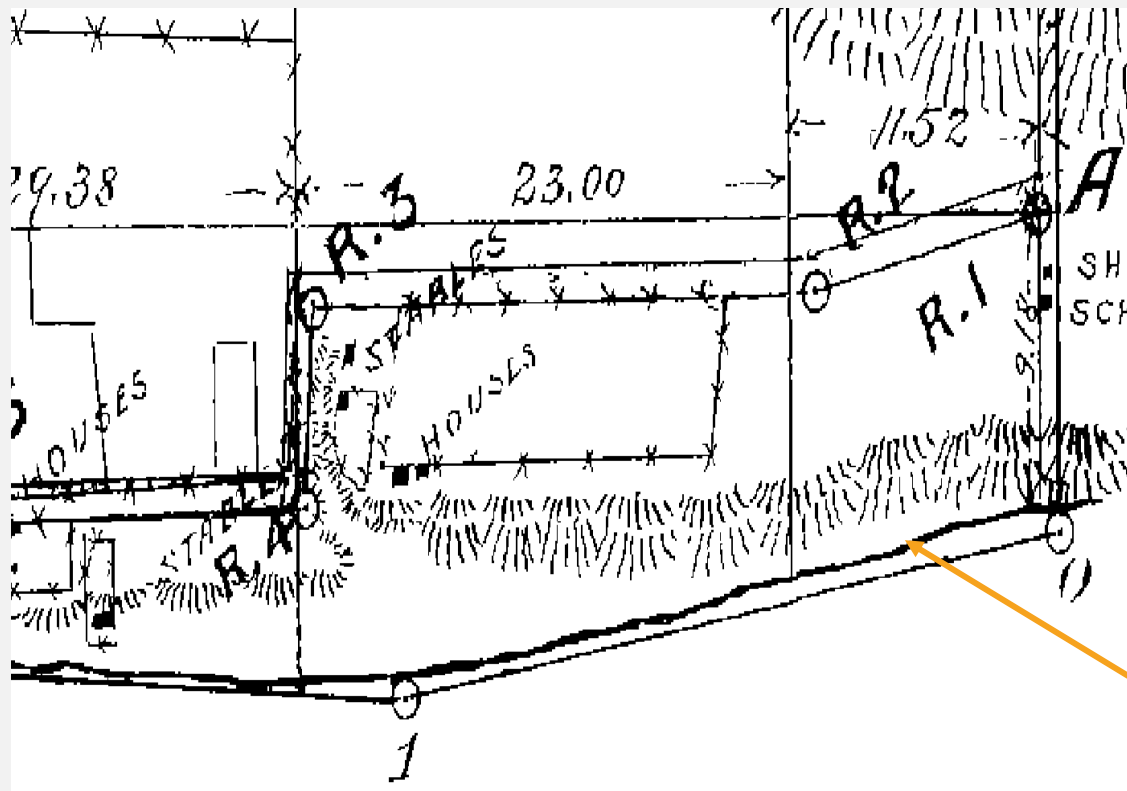
"There is a small sliver north of the river"???

SOUTH OF THE RIVER

- Certificate of Title: “All that portion of the north east quarter ... not covered by the waters of the Saskatchewan River” as shown on the 1903 Township Plan with an area of 113.20 acres more or less
- Crown patent (January 15, 1919): North boundary ran “South-Westerly along the said right bank of said River”, as shown upon the 1903 Township Plan.



NORTH OF THE RIVER

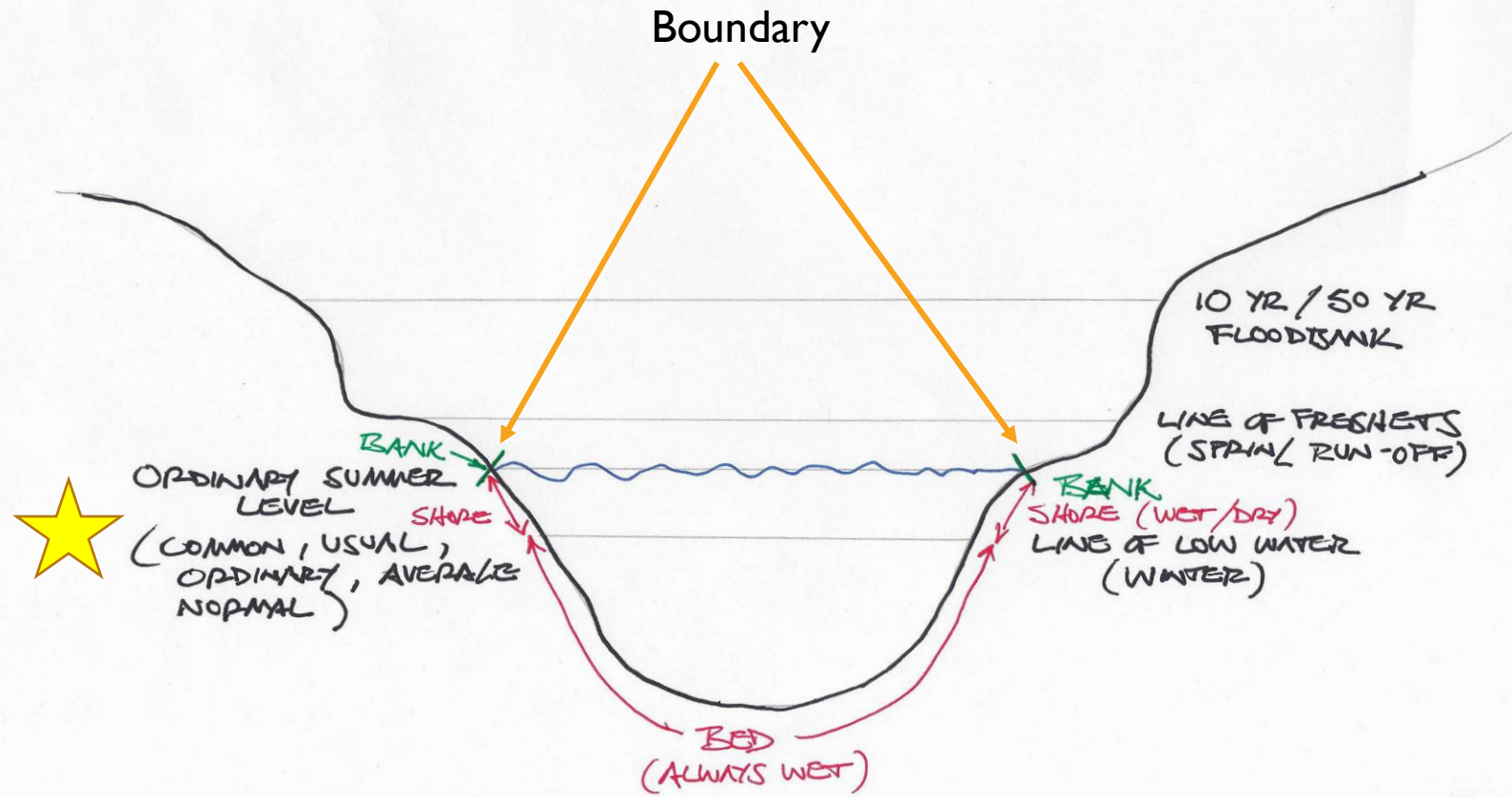


Victoria Settlement parcels were bounded by river

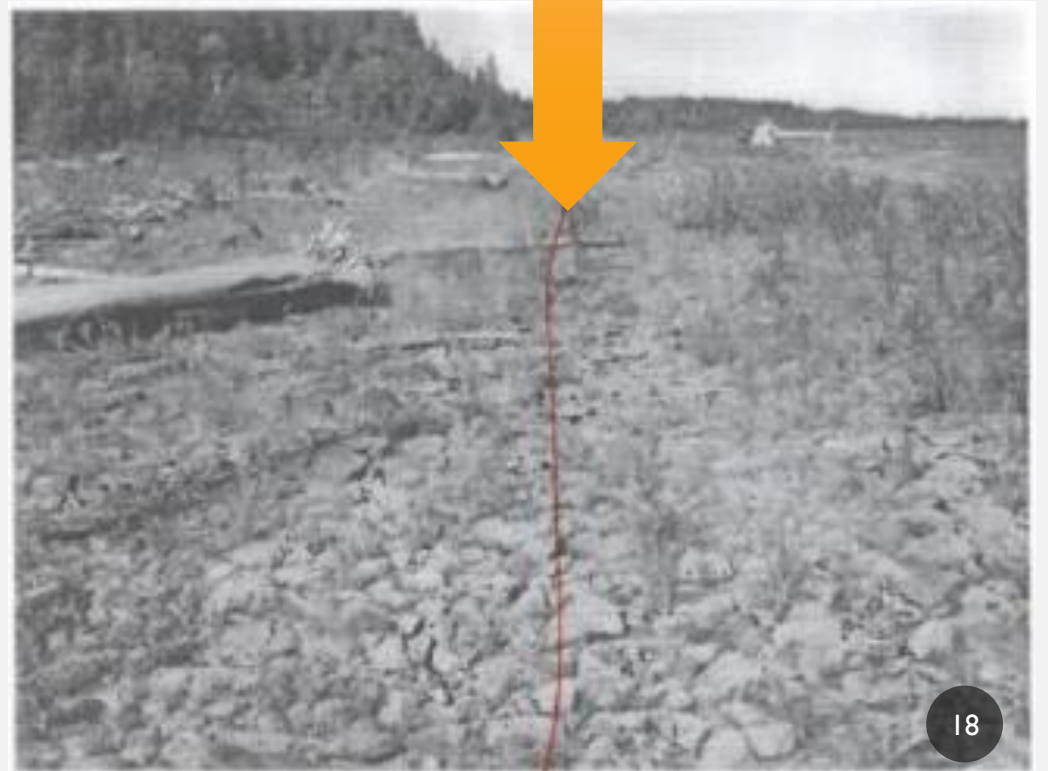
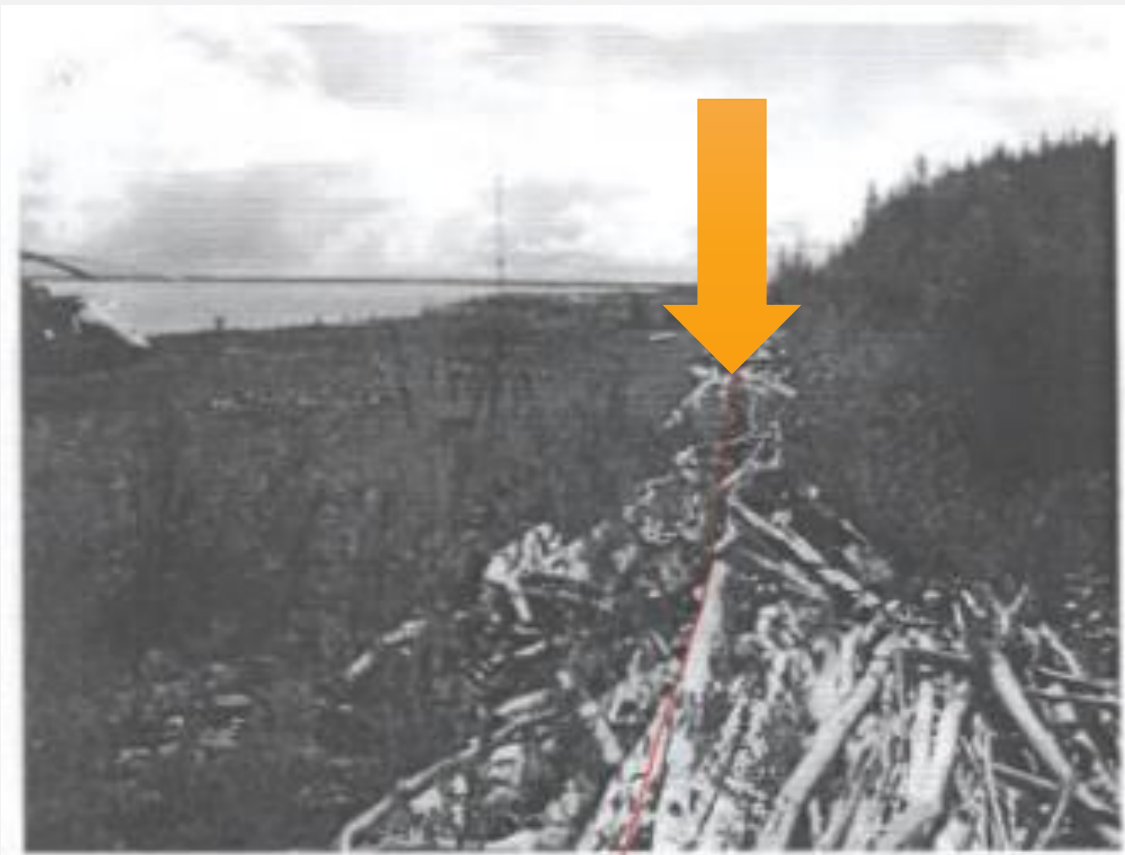
SURVEYS ACT,
s.17

- ALS determines line where bed/shore ceases
- Boundary = “bank”
- Bed/shore = covered so long by water as to:
 - wrest from vegetation, or
 - mark a distinct character on vegetation or soil

CROSS-SECTION OF A WATERCOURSE







ISLAND VIEW V ROMASHENKO (SKCA - 2010)



BEWARE OF SPRING FRESHETS
(RAINFALL/SNOWMELT)

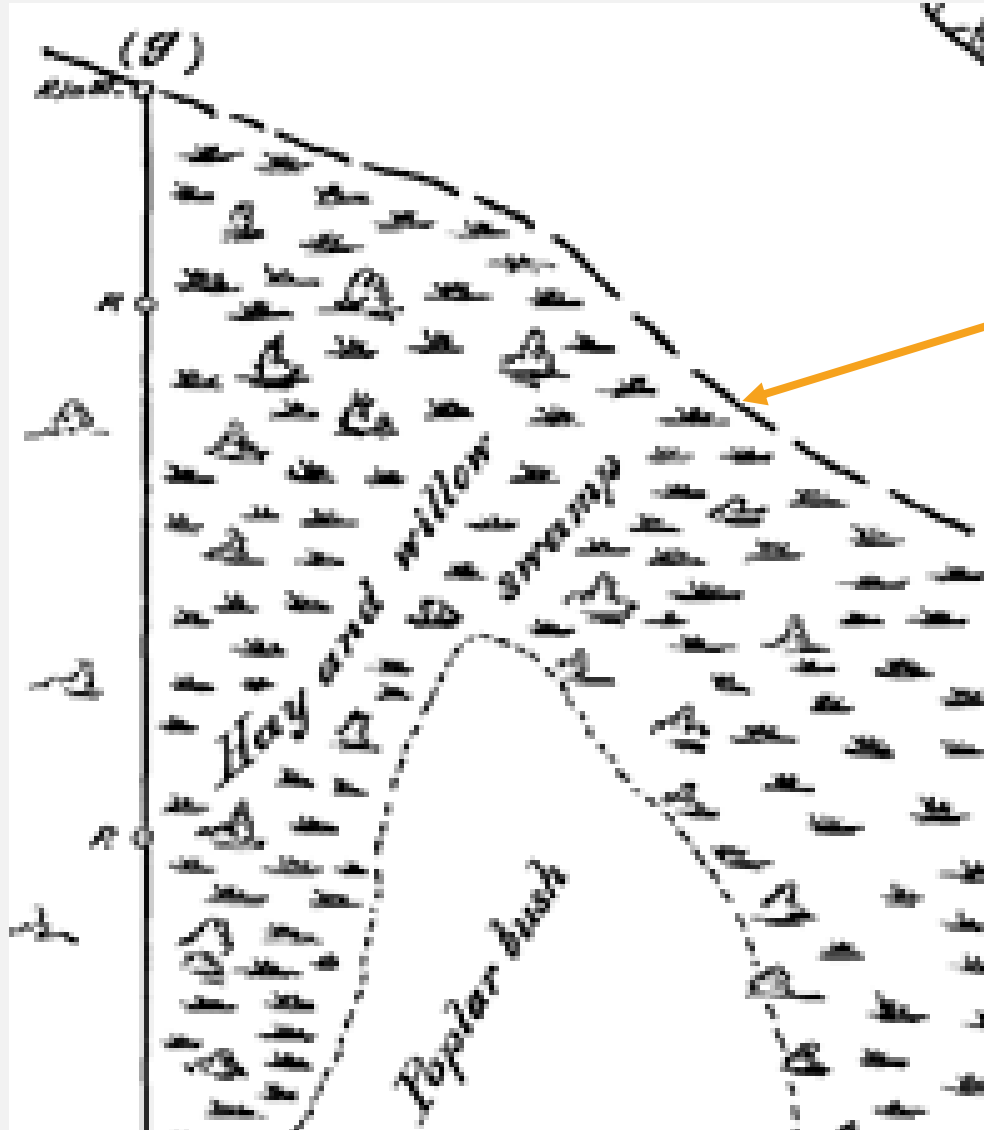
- **Principle** Boundary is formed by ordinary waters of river “during 10 or 11 months in each year when there was an absence of flood conditions ... when the summer sun or the rains melt the snows” – *Clarke v Edmonton* (1930).
- **Policy:** “The ordinary height of water is what establishes the bank, not ... slopes, vegetation or freshets” – *AB. Natural Boundaries*. 1989.
- **Practice** Survey from mid-summer to mid-fall, “to avoid extraordinary high water levels due to spring run off, which could temporarily submerge the natural boundary” – ALS expert in *Johnson v AB* (2005).
- Thus, strip of land “flooded several times a year” = upland, NOT river!

- “The last landward vestige of a transitional plant species, existing by reason ... of the water table has been mistakenly identified as the bank”
 - AB. *Natural boundaries*. p30. 1989.
- “Vegetation change or absence of vegetation does not necessarily associate with the bank”
 - AB. *Principles of water boundaries*. p56. 1991.

Vegetation is a good servant but a poor master!



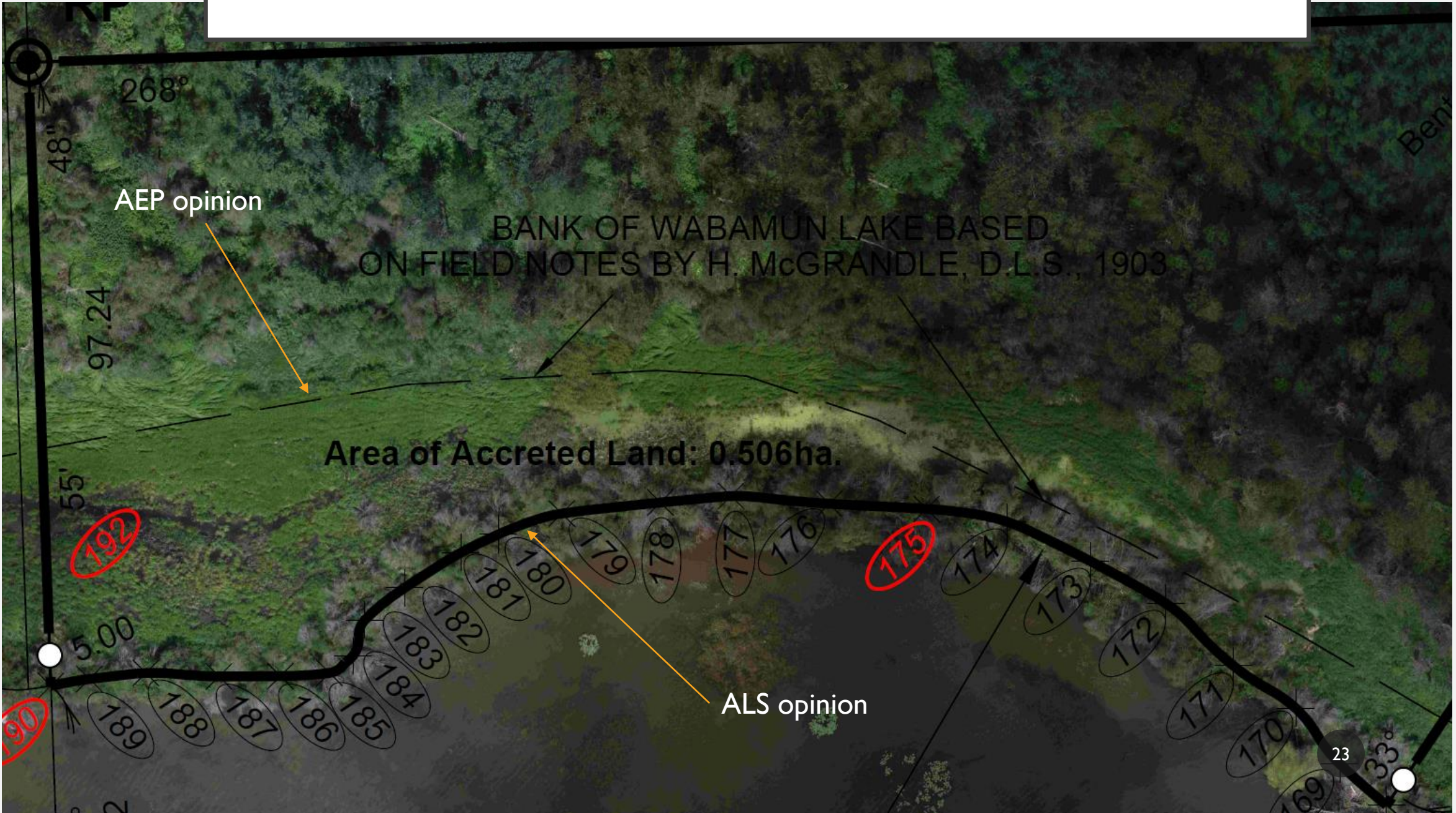
LESSER SLAVE LAKE



Bank

The hay and willow swamp along the Lake shore has been included in the Reserve, but three thousand acres has been deducted from the total area on account of water and waste land.

REAL STUFF #2 – WHERE IS THE BANK?





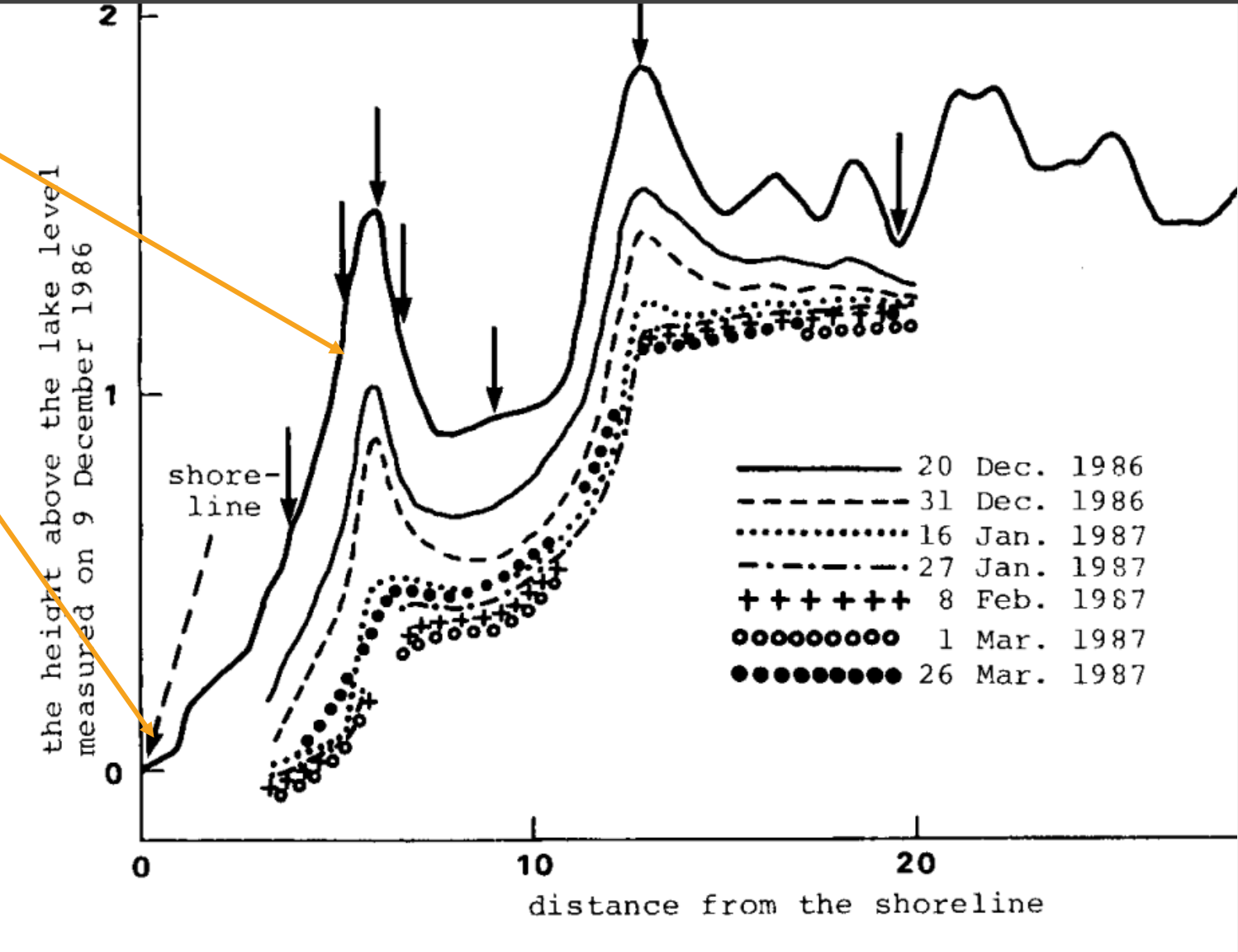
Berm

BERM PRINCIPLES

- Lake ramparts are formed:
 - At the interface between the lake and the upland, from:
 - Ice expansion during the winter, or
 - Floating ice during spring breakup.
- Berms are deposited on the upland (“landing of lake ice”):
 - At the existing bank; or
 - Upland of the existing bank.
- Also, DLS traverses of lakes are notoriously unreliable (i.e. 1958 survey found parts of DLS traverse above lake and parts of DLS traverse below lake).

HMMMM, WHAT DO PEER-REVIEWED BERM EXPERTS SAY?

Upland
Bank



To amend description to reflect change in location of bound (owing to accretion/erosion)

- Plan of survey or other evidence showing the location of the boundary;
- Consent of the Province (in whom the watercourse is vested); and
- Consent of owners of parcels “that may be affected by amending the description.”



*LAND TITLES
ACT, S.89*

TYPICAL APPLICATION

Profiles

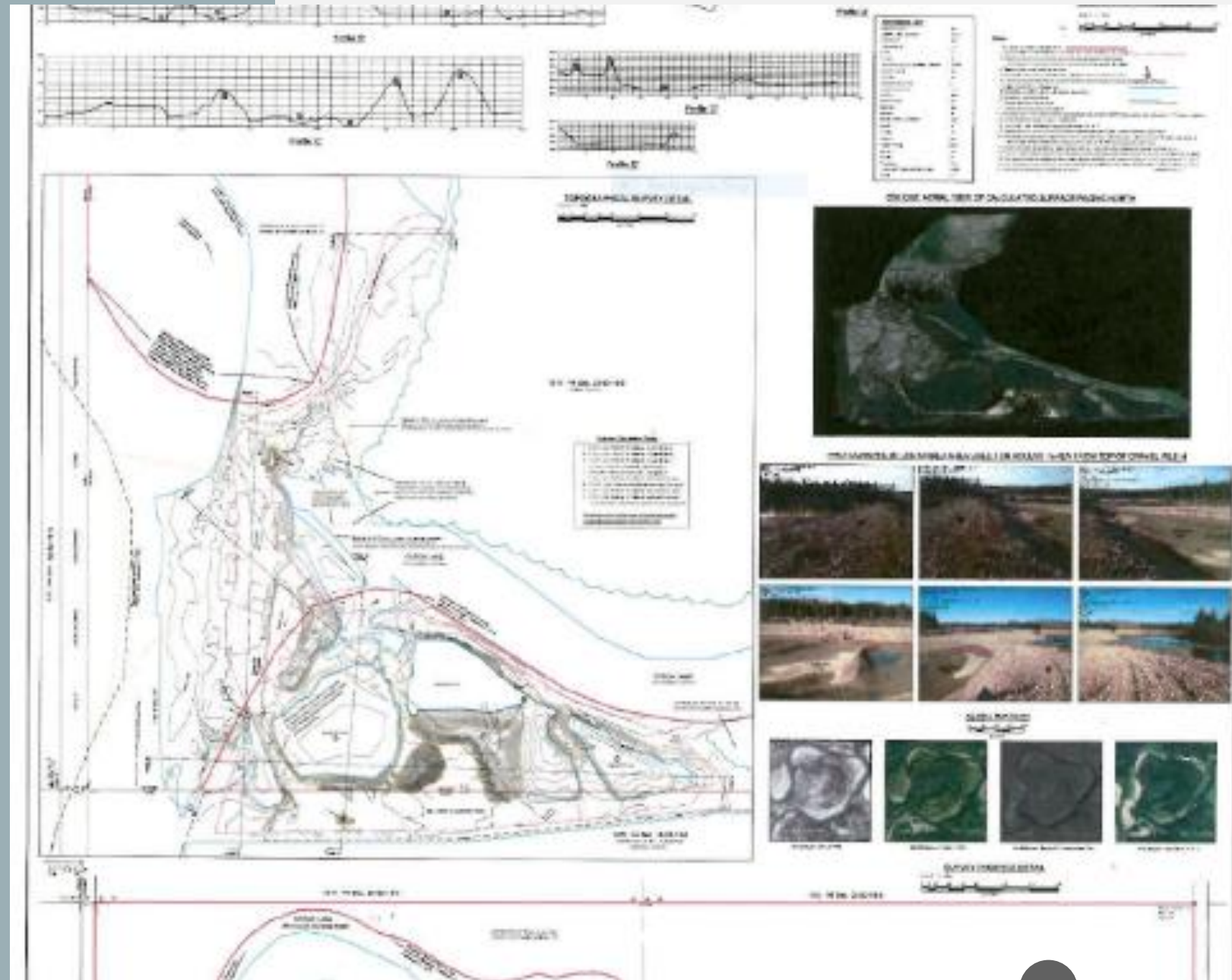
Cross-sections

Oblique aerial photos

Historical imagery

Disturbed areas

Survey evidence

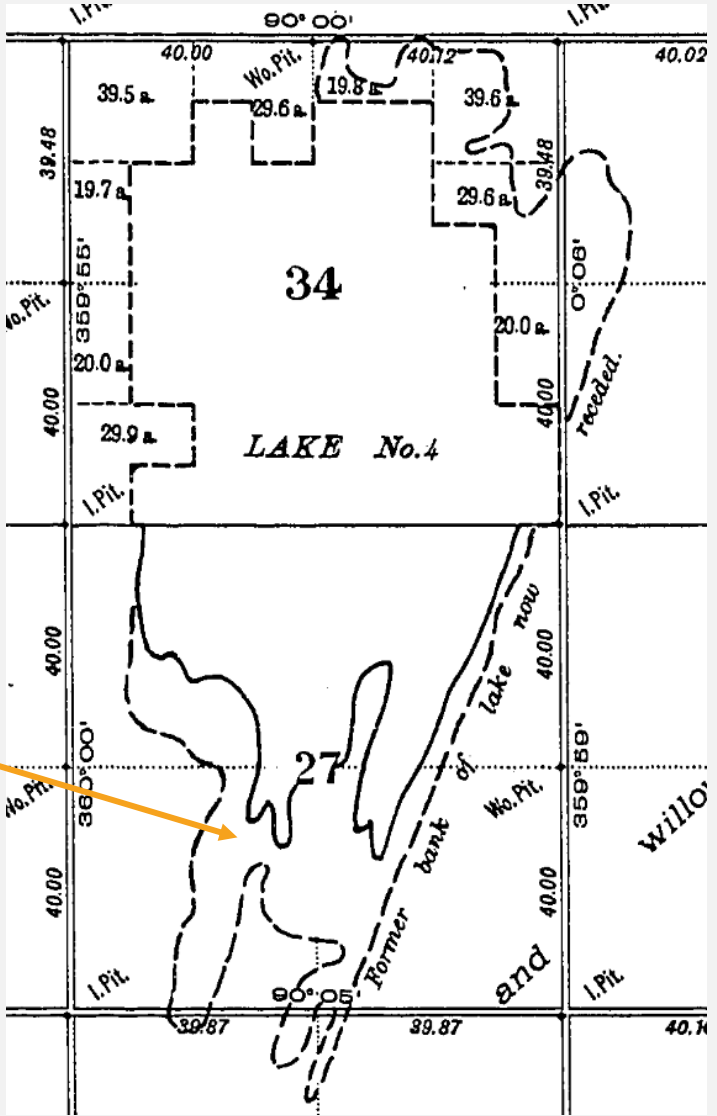


0640453 BC LTD V TRISTAR COMMUNITIES LTD, (BCCA - 2018)

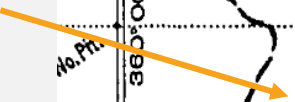
- Accretion enlarges a parcel, regardless of the Province's actions:
 - “The land vests in the riparian owner by operation of law. When property is conveyed, title to any lawfully accreted land is conveyed with it.”

- Province merely amends descriptions in:
 - Survey plans; and
 - Certificates of title

REAL STUFF #3 – IS IT ACCRETION?



Shift from 1904-1918



2019 ALS opinion = reasonable





WHAT IS ACCRETION?

- If the water boundary moves out, then accretion has occurred, and the parcel increases in area
- If the water boundary moves in, then erosion has occurred, and the parcel decreases in area
- Bank must shift slowly, gradually and imperceptibly
- Shift must be incremental (i.e. it happens at bound)
- The cause is either:
 - natural forces (water or wind), or
 - inadvertent effect of a valid structure (e.g. bridge, pier, groyne)



Big-ass asterisk



ACCRETION CONSTRAINED BY PARCEL

Pitt v. Red Deer (ABCA – 2000)

- That part of the NE $\frac{1}{4}$ lying west of the Red Deer River.
- As the river moved out of the NE $\frac{1}{4}$, the parcel only increased to 160 ac.

Johnson v. Alberta (ABCA – 2005)

- All that part of the section not covered by the waters of Buffalo Lake.
- As the lake receded, the parcel only increased to 640 ac.

Patent = NE $\frac{1}{4}$ of S25, not covered by waters of Gull Lake



1930: Plan of addition to Brownlow's landing subdivided part of NE $\frac{1}{4}$ of S25



2007, Gull Lake had receded 600+m

Out of NE $\frac{1}{4}$ of S25

Into SE $\frac{1}{4}$ of S36

CONSTRAINED BY PARCEL
LACK V AB (ABQB - 2011)



New bank in S36



Section line



Old bank in S25

ACCRETION = UPLAND CHARACTER

ELIASON V REGISTRAR (ABQB – 1980)

1895: Grant of the NW ¼ not covered by the waters of lake, containing 146 ac more or less “reserving thereout all coal.”

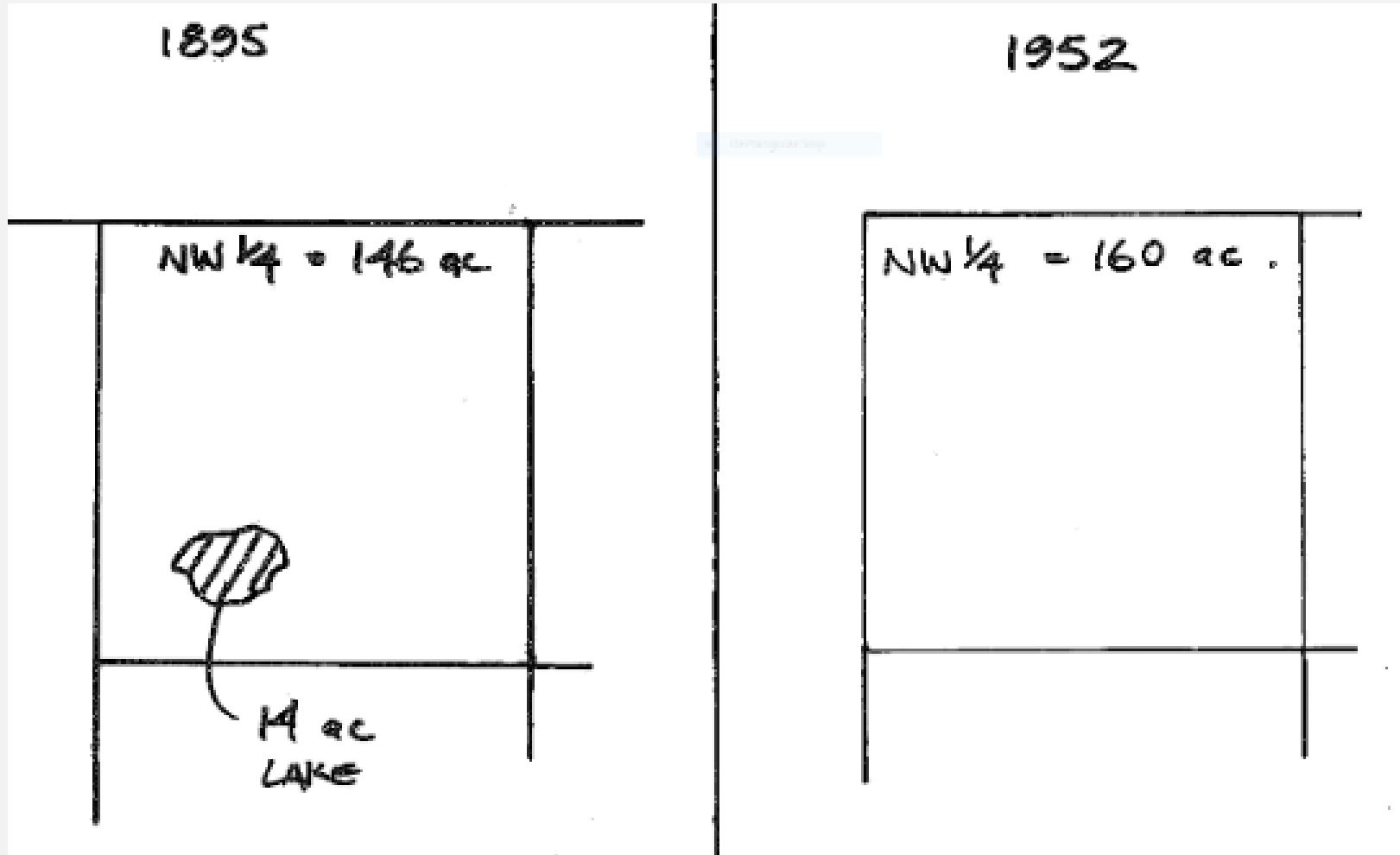
1952: Lake dry, water having retreated gradually

- Crown claimed minerals
- Upland owner claimed all minerals except coal

Accreted land = upland (all minerals except coal)

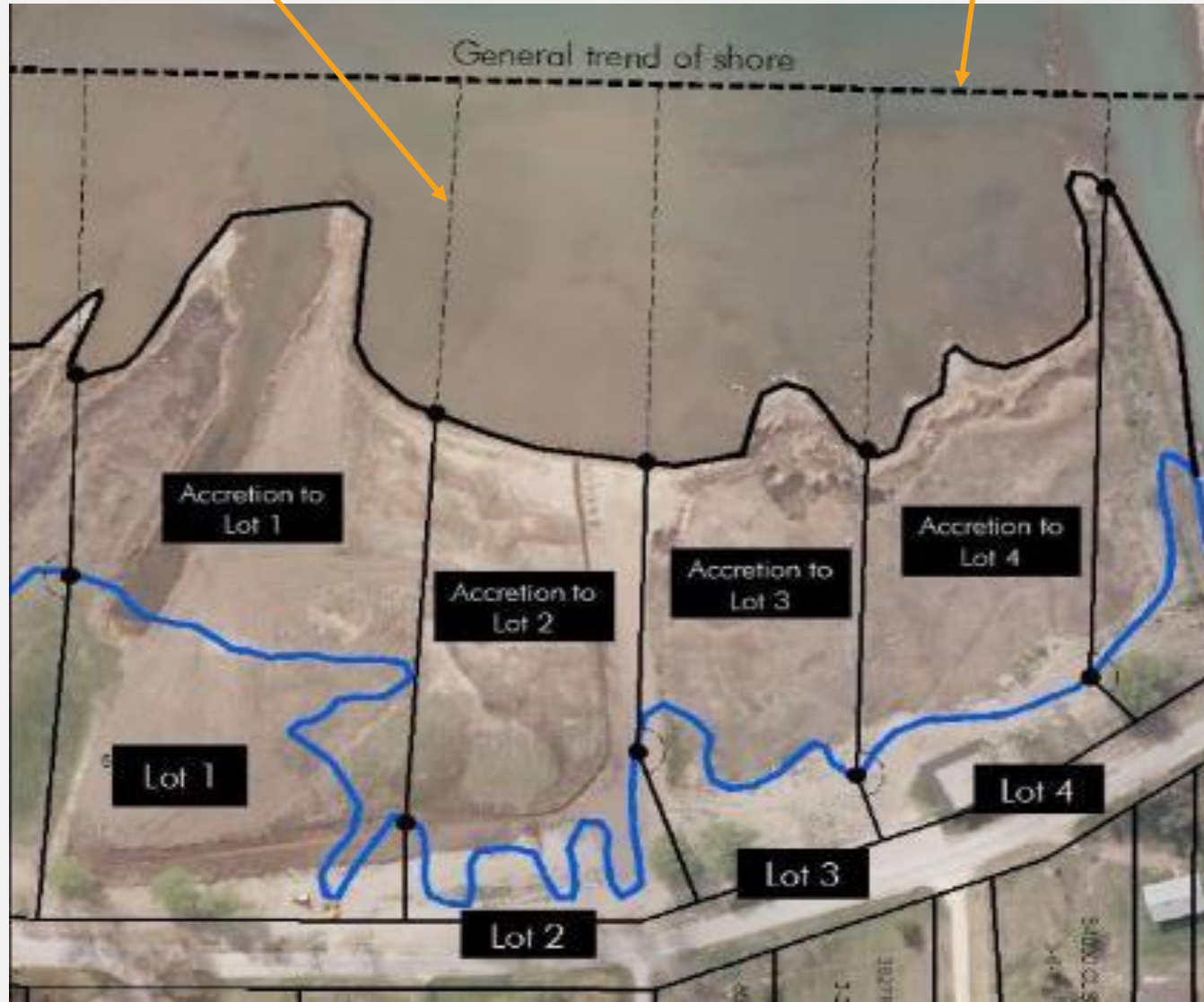
IT'S A FAIRLY SIMPLE CASE OF NON-LAKE

(PARAPHRASING MONTY PYTHON. MR PHONE-IN SKIT)



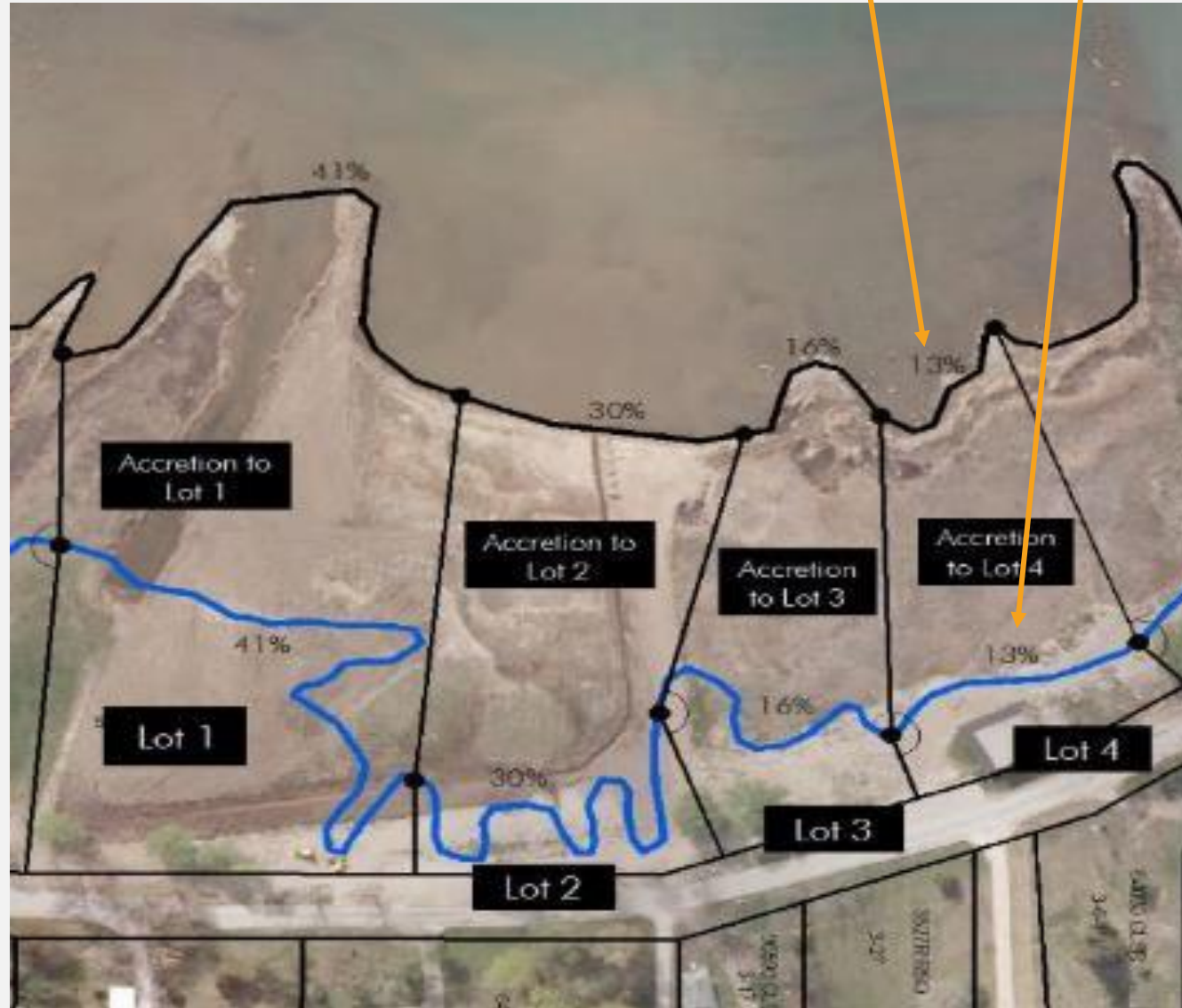
PERPENDICULAR FROM BASELINE

PAUL V BATES, 1934



PROPORTIONING NEW VS OLD

RE: BREW ISLAND, 1977



INEQUITABLE = OVERLAPS

ANDRIET V STRATHCONA COUNTY (ABCA – 2008)

Old bank

New bank



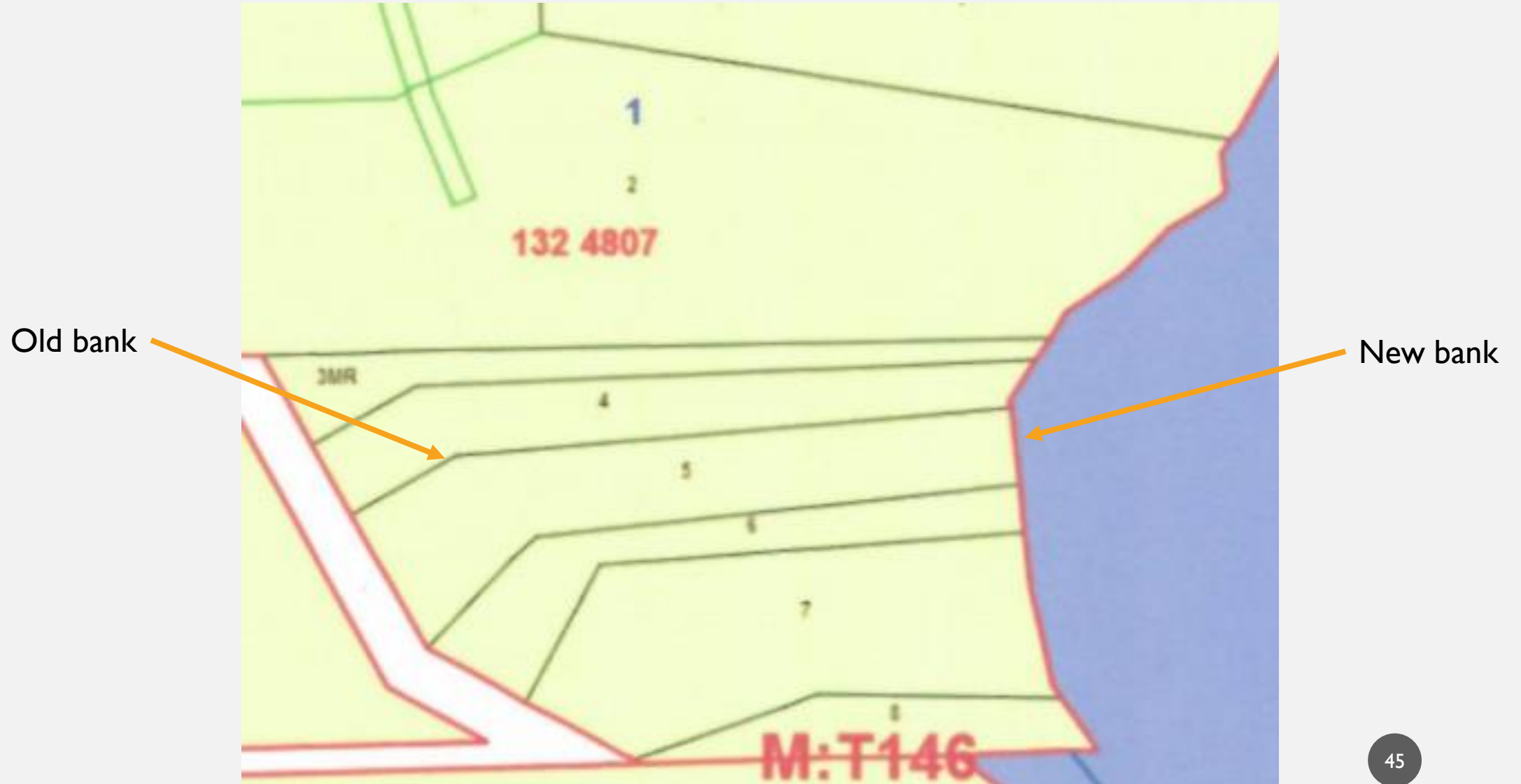
Overall

- County of Strathcona
- County of Strathcona - Proposed Accretion
- Individual Lots
- Individual Lots - Proposed Accretion
- McGowan
- McGowan - Proposed Accretion
- Andriet
- Andriet - Proposed Accretion

- Lot 1 - Strathcona County
- Lot 5A - William and Frances Johansson
- Lots 6 and 7 - Ken and Pat Schley
- Lots 8,9 and 10 - Brian and Judy Dawson
- Lots 11 and 12 - Peter Todd and Lynn Forsythe
- Lot 13 - Strathcona County
- NW 13-51-22-4 - Douglas and Jacqueline Andrie
- SW 24-51-22-4 - Gary McGowan

EQUITABLE = MEGA BENDS

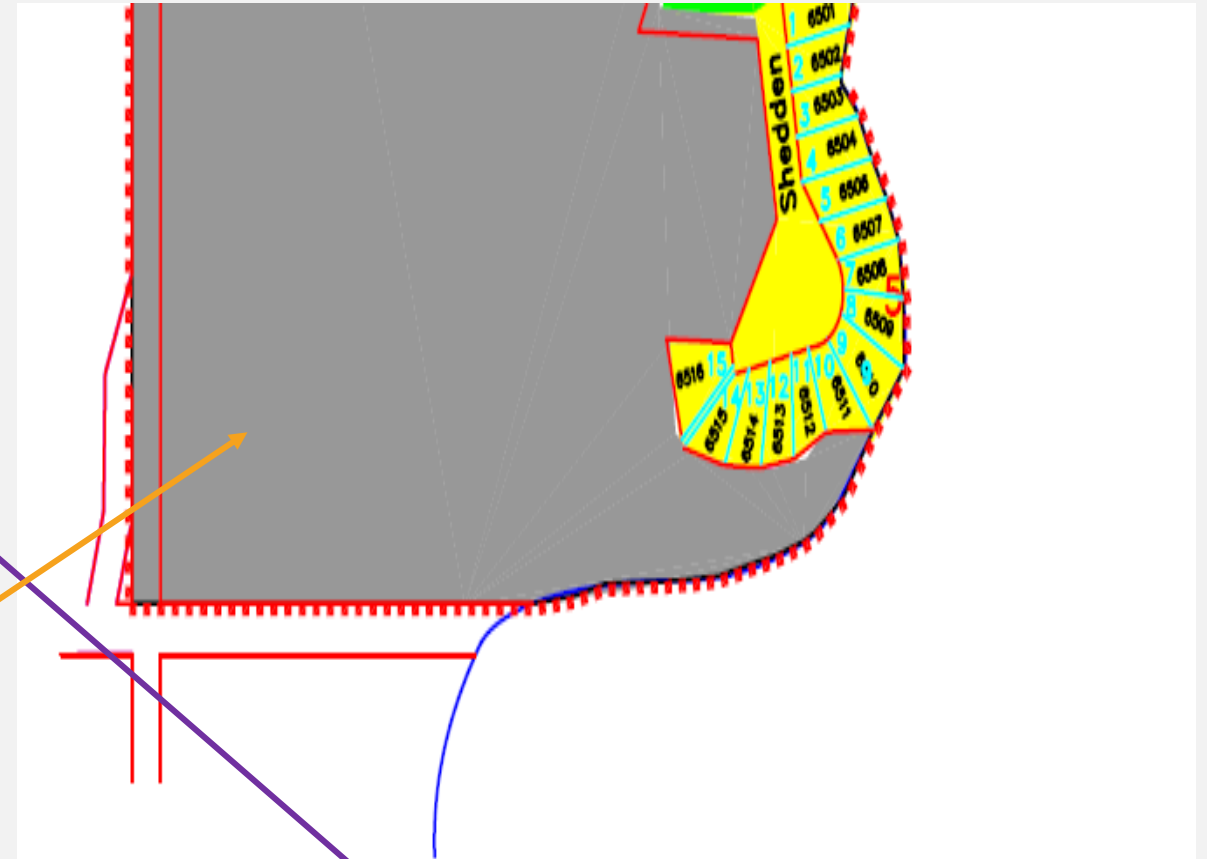
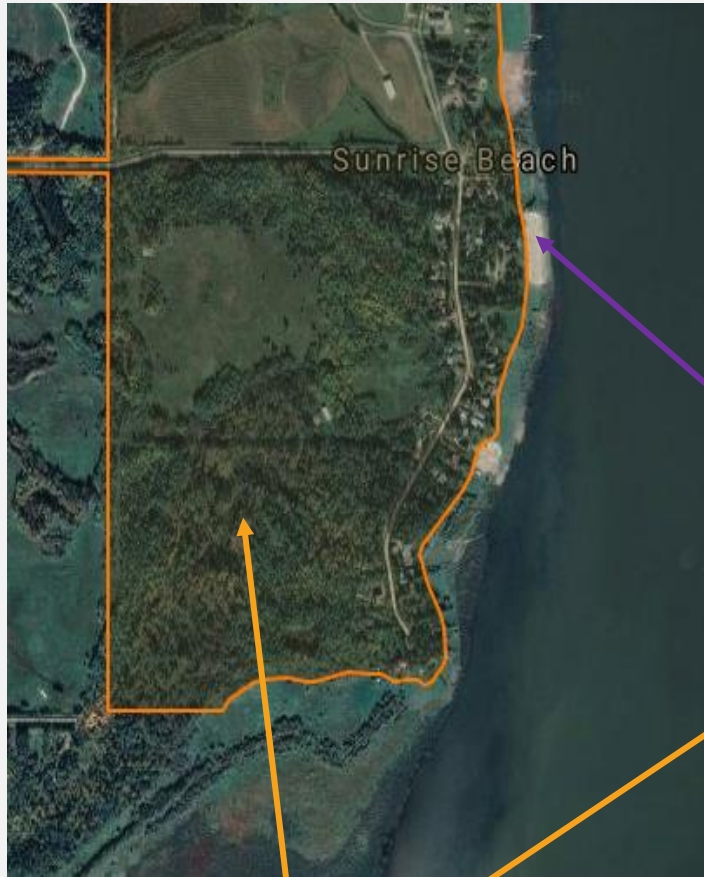
ANDRIET V STRATHCONA CTY (ABQB - 2010)



REAL STUFF #4 – HOW IS ACCRETION APPORTIONED?

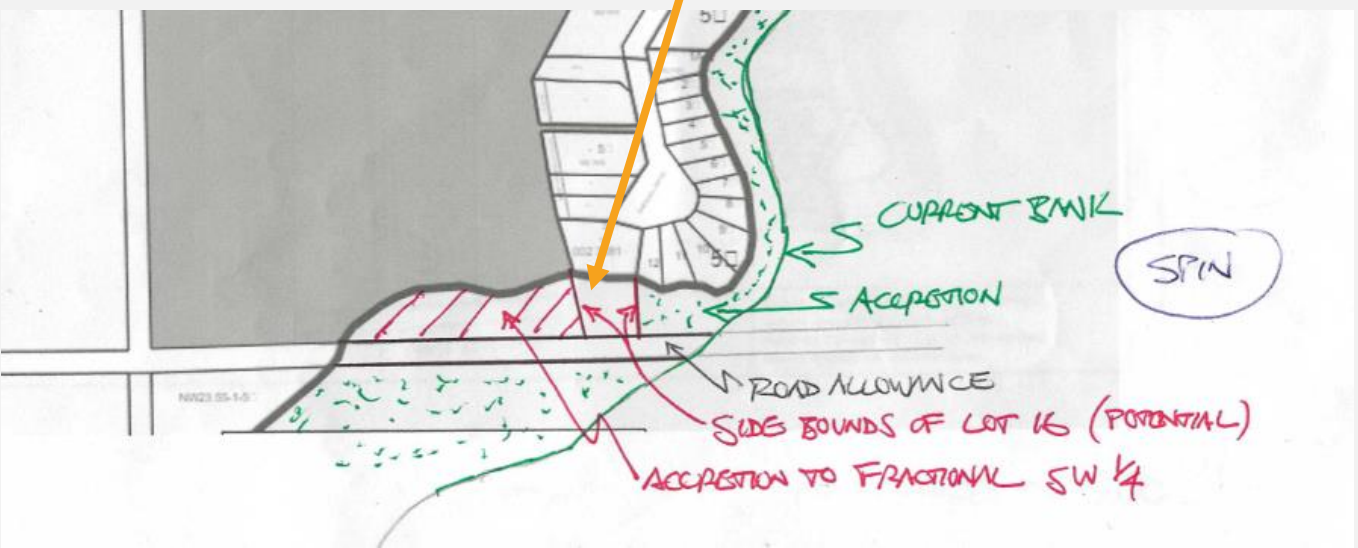
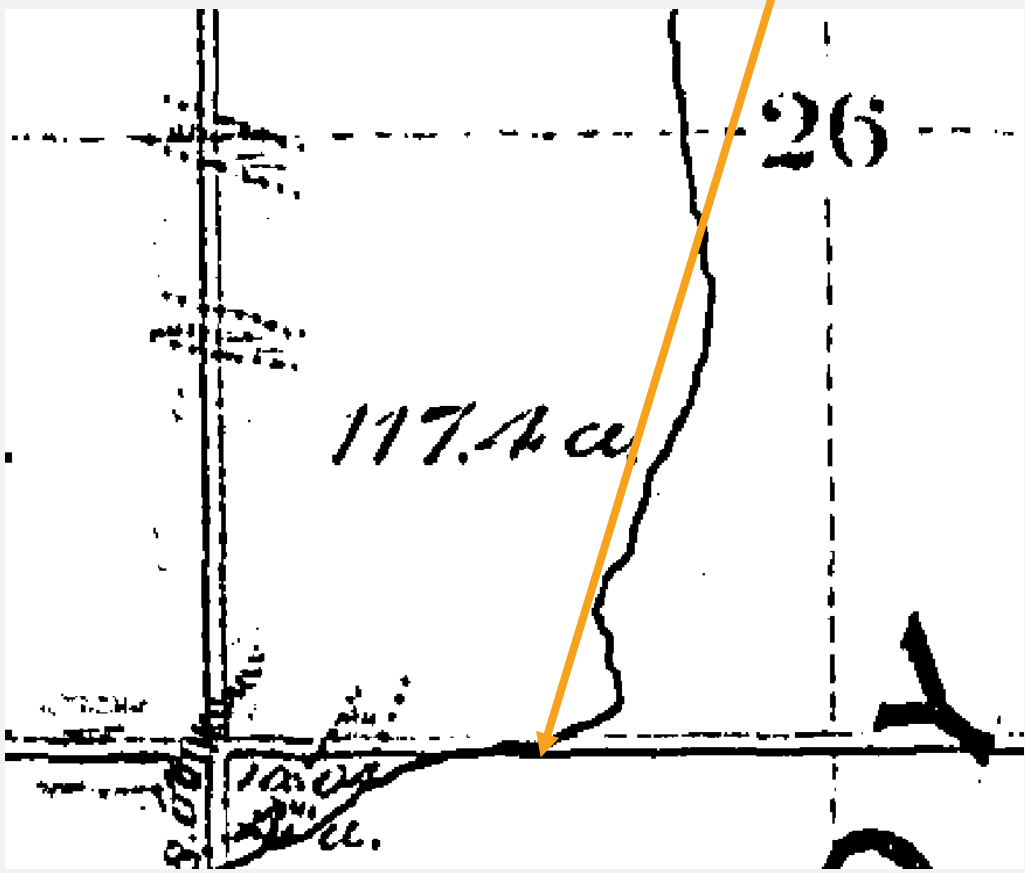


MISLED BY MAPS AND LAND USE BYLAWS



Landowners (fractional 1/4 section) asked whether they had possession of beach through accretion

CONSTRAINED BY SECTION (TO S) & NEW PARCEL (TO E)



Avulsion: Elbow River over 15 days



Bank

ROBERTSON V. WALLACE (ABQB – 2000)



Old meander of river;
now an oxbow/slough

River broke through
neck of meander,
on a dark'n'stormy night

REGULATED WATERS

Water bounds (i.e. accretion/erosion) can exist on watercourses “partially augmented by the hand of man”

Meyer v McLennan (ONCA - 2005)

So, two questions – Purpose & effect of regulation?

Equation: Level of reservoir = inflow – outflow

- Navigation = constant level; variable outflow
- Floods/electricity = constant outflow; variable level

Cdn Provincial Power v NSPC (SCC - 1928)



WHAT IS THE EFFECT OF REGULATION?

Old school: If the waters are raised quickly (e.g. by a dam), then

- the parcel is merely submerged = avulsion
- the bank is **fixed in location at the time of alteration**

* **New school:** If the waters are raised quickly (e.g. by a dam), then:

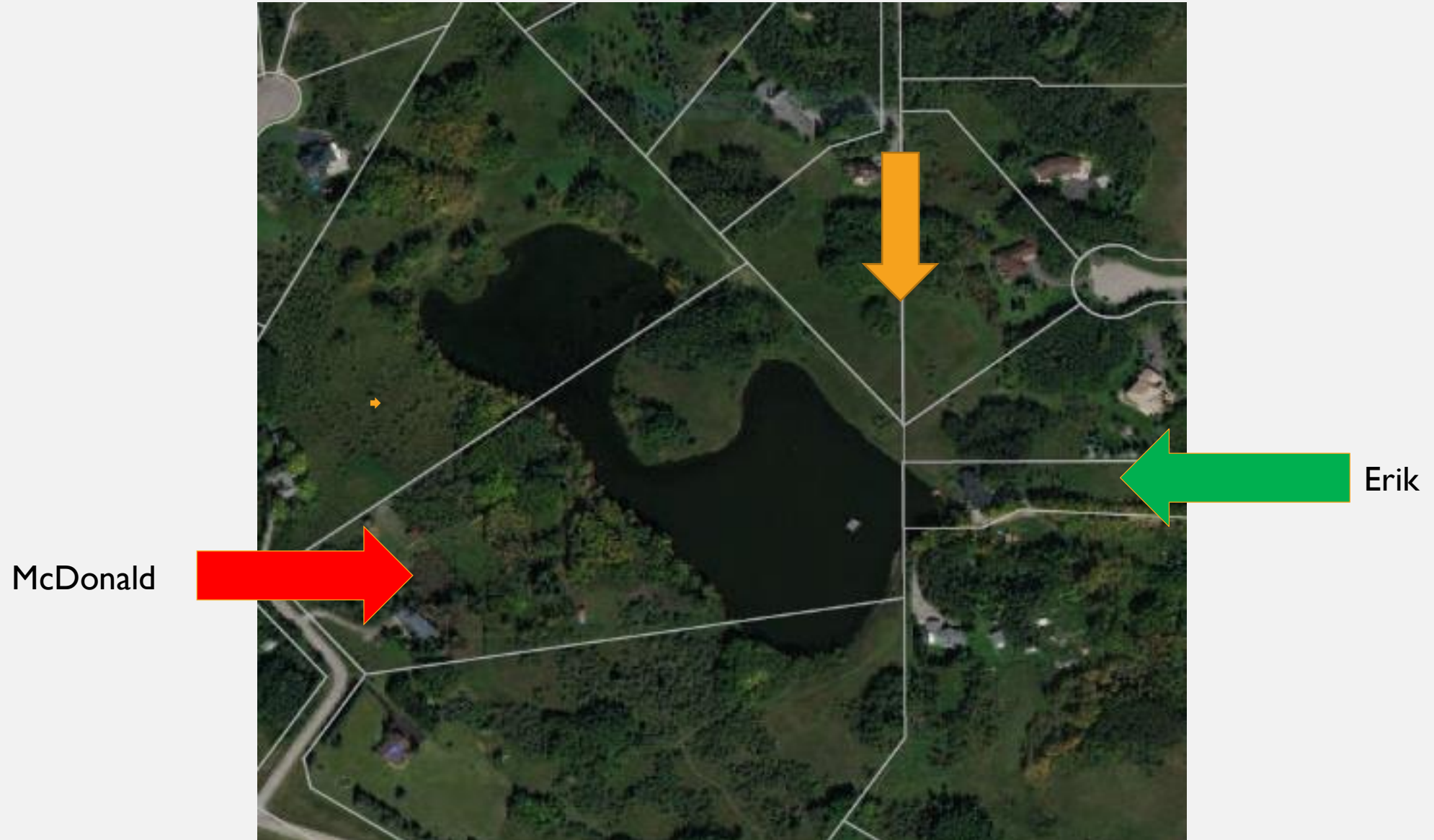
- the parcel is reduced in area = erosion
- the bank **shifts inland according to the raised waters** (“bed/shore covered so long by water”)

When the dam is removed:

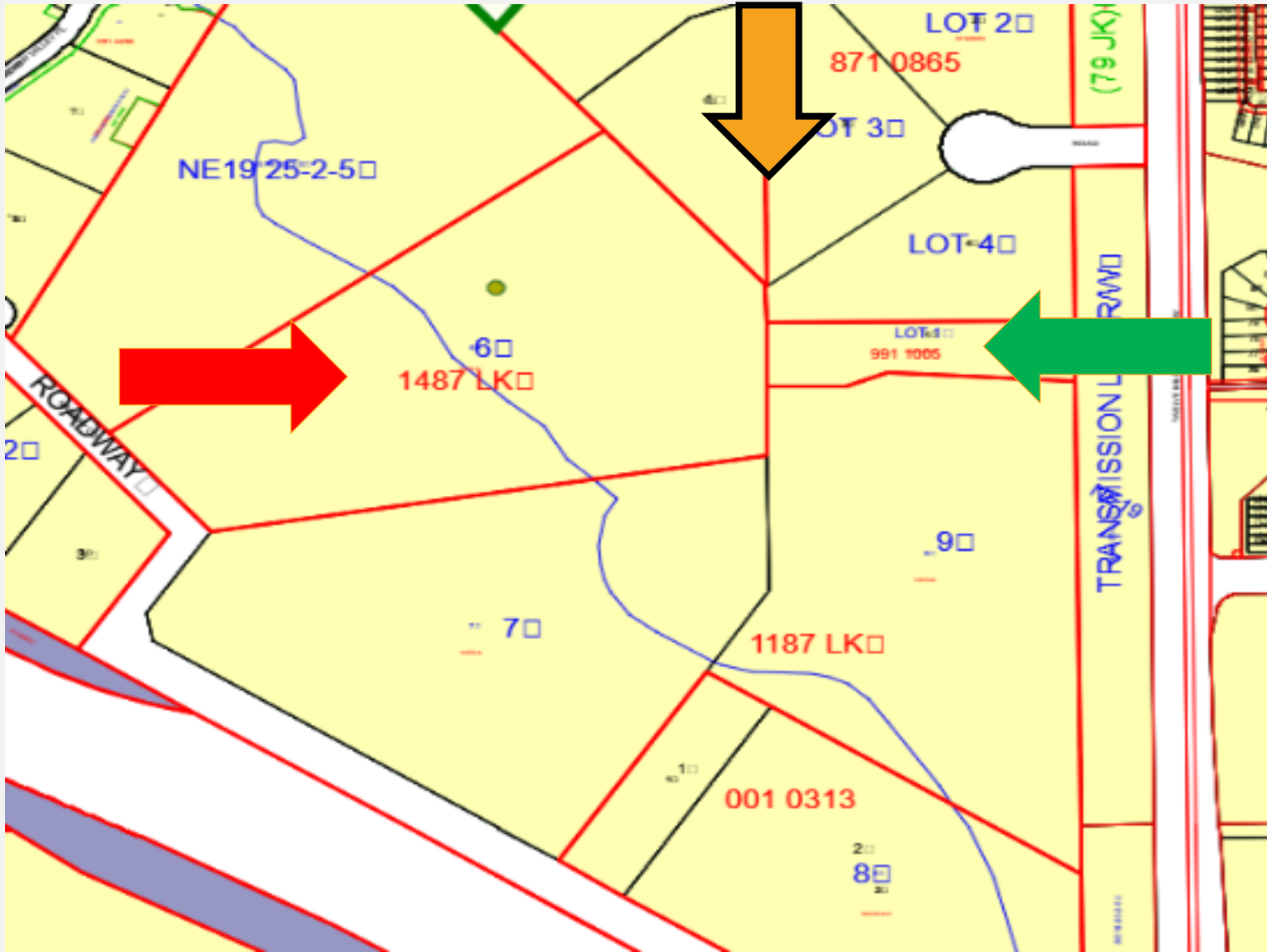
- the water body returns to its pre-regulated level
- the parcel increases in area = accretion
- the bank shifts to its pre-regulated location

Big-ass asterisk

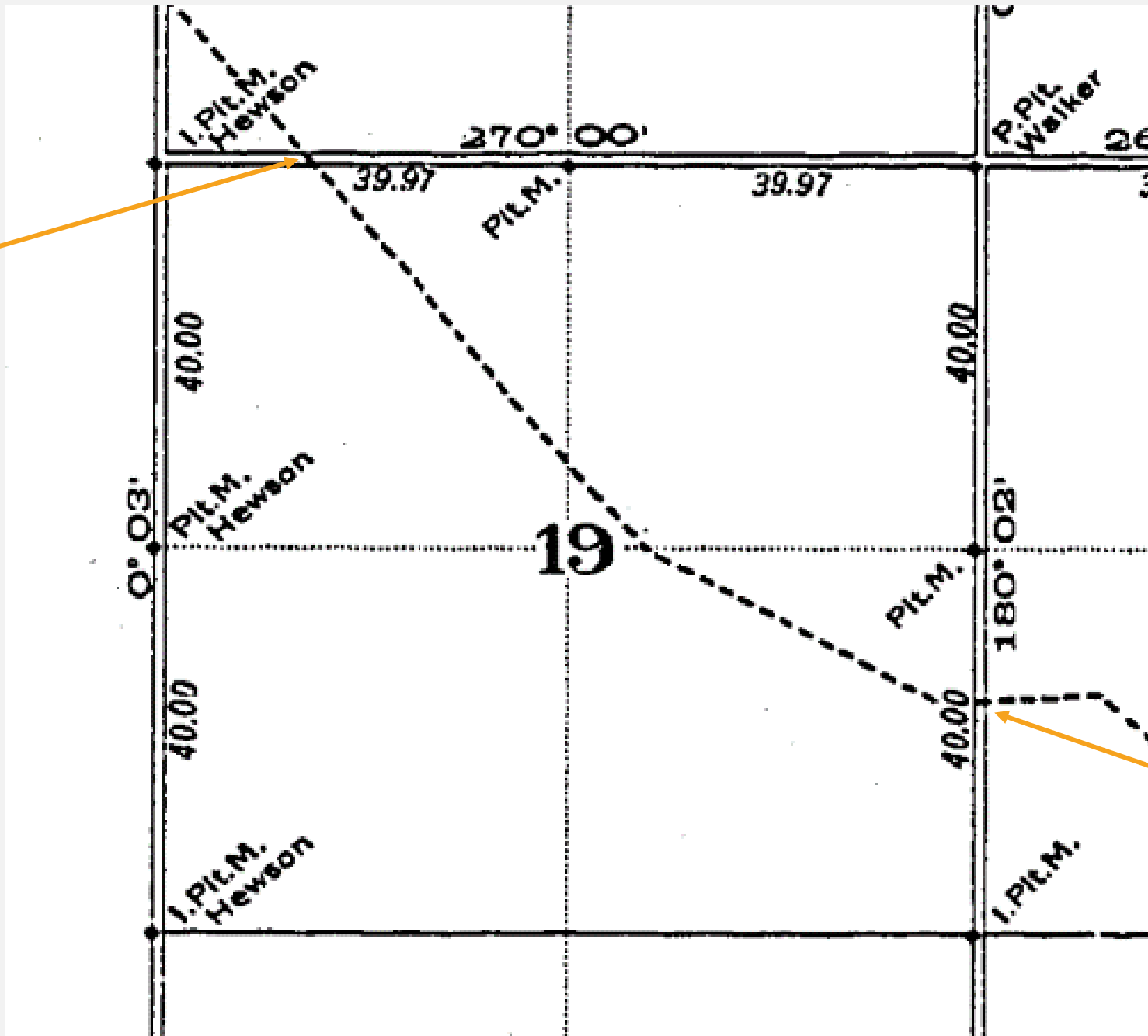
ERIK V MCDONALD (ABCA – 2019)



WAIT ... WHAT?



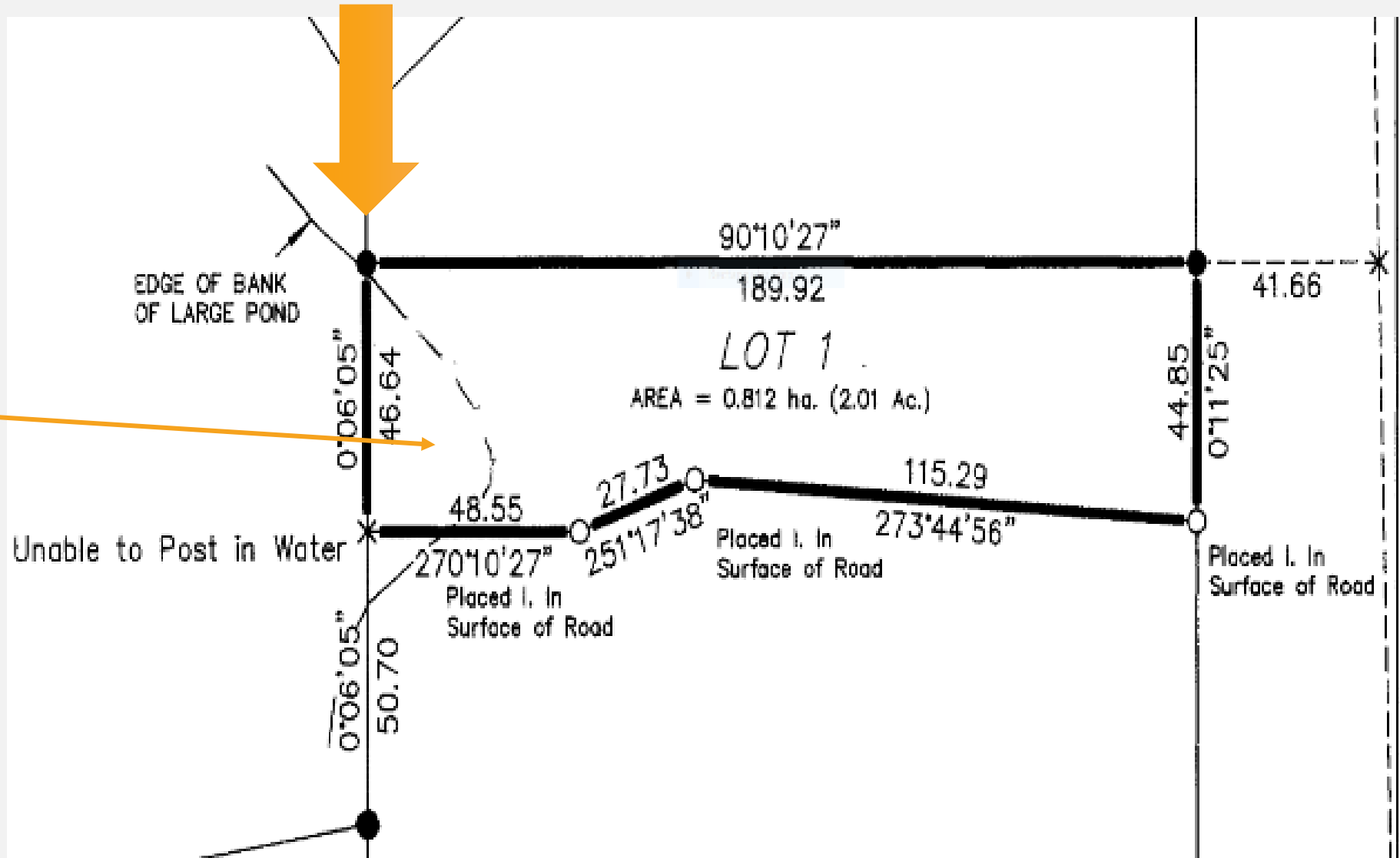
Stream entering



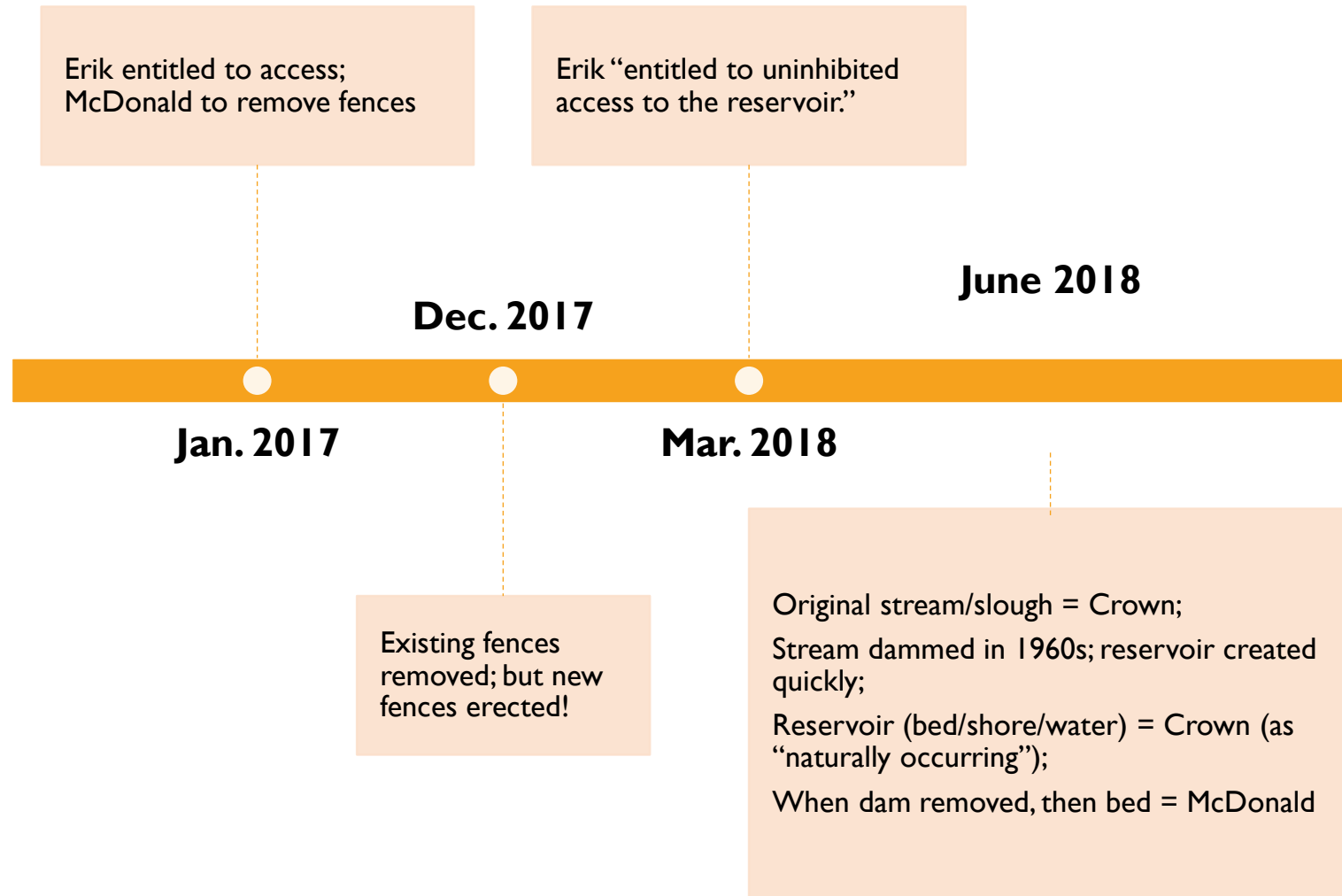
Stream leaving

1999 PLAN

Reservoir
encroaching
onto Lot 1



JUDGMENTS



AD MEDIUM FILUM

- Some parcels bounded by non-navigable rivers are presumed to extend to the middle thread:
 - First Nation Reserves (*R v Nikal/R v Lewis* (SCC - 1996))
 - CPR parcels
 - HBCo parcels
- amf presumption is rebutted by express language in the description (e.g. “excepting the bed of the river”)
- Because navigability

MIDDLESEX CENTRE V MACMILLAN (ONCA – 2016)



NAVIGABILITY = 4 INDICIA

- **Aqueous highway?**
 - “What is the potential practical utility of the [watercourse] as a means of public transportation?” (*Middlesex Ctr v MacMillan*, 2016)
- **Capable of use?**
 - The watercourse need only be capable of being navigated, not actually navigated (*R v Nikal/Lewis*, 1996)
- **Historical use?**
 - Historical use is persuasive: by Indigenous peoples, by explorers/mappers, by surveyors, by fur trade, by settlers, by loggers (*Keewatin Power v Kenora*, 1906)
- **Size matters!**
 - Lakes are merely “enlarged watercourses wherein the waters are quiescent” (Flushman, 2002)
 - A small lake (3km by 0.5km) with non-navigable inlets and outlets is non-navigable because it does not “constitute any part of the common highway” (*Williams v Salter*, 1912)
 - Larger lakes are navigable regardless of inlet/outlet:
 - Stoney Lake (15km by 5km): *Stephens v MacMillan*, 1954
 - Big Cedar lake (4km by 2km): *Glaspell v ON*, 2015