

Fish weirs, ktaronto & 13 other riparian boundary fallacies¹

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ABSTRACT

Given simplicity in riparian bounds (mostly water's edge, sometimes mean low/high water, *ad medium filum* in the absence of statute); gradualness in erosion; equity in apportioning accretion; and plethora in commentaries - let's not reinvent the wheel. Rather, let's debunk 13 fallacies of riparian bounds. Some fallacies are overt - set out verbally, on plans, through practice and in policy; others are covert - inferred through action and inaction.

PART A – CONTEXT:

This paper can be truncated to one phrase: “I ran down to the levee, but the devil caught me there,”³ because it captures the ubiquity, paradox and fallacy of watercourses, and thus, of riparian boundaries. Watercourses are ubiquitous in law, in language, in mythology and in song. The first recorded boundary dispute focused on access to the Tigris River in Mesopotamia, 4,500 years ago (*Lagash v. Umma*). A rival is somebody who lives along the same stream, and if your watercourse is contaminated with buffalo manure (as the Republican River was in the USA), then you are literally located “up shit's creek.”⁴ Caesar agonized before he crossed the Rubicon and the Ephraimites were forced to utter the word for stream (*shibboleth*) if they wished to cross the Jordan. Having driven to the levee we find that “the levee was dry” (McLean); adventures take place “up on Cripple Creek” (The Band); we pray that “the creek don't rise” (Lamontagne) and rely on a “bridge over troubled waters” (Simon & Garfunkel); when it does rise there is “high water everywhere” (Dylan) inspiring McKinley Morganfield to become Muddy Waters.

A watercourse is also a paradox – both sanctuary and prison: “The river was built to be a trap for the stupid.”⁵ Watercourses are both good and bad; in both a physical and spiritual sense. We go to the watercourse to wash away sins, yet we often find the riparian boundary to be problematic.⁶ Contradictory edicts are issued: Annie Lennox orders: “Take me to the river” but Stevie Ray Vaughan is warned: “Don't stop by the creek, son.”⁷

PART B – PRINCIPLES:

Riparian bounds in Ontario are generally the water's edge on the day for most parcels (in the non-tidal regime).⁸ For example, water's edge has been used as the location and descriptor of the riparian bound of First Nation Reserves since May 1980.⁹ In the tidal regime, most riparian parcels are bounded by the line of mean high water (OHWM), although some parcels extend to mean low water (OLWM). Although the presumption that a riparian parcel extends to the middle of the water course (*ad medium filum*) has been largely eliminated in Ontario through legislation, it lives on for Reserves.

The primary question, of course is: Does the parcel have a riparian bound? If yes, the riparian boundary principles can be truncated to:

- If a parcel is bounded by water, then there is the potential for the parcel to gain in area through accretion, owing to gradual deposition or retreat of the water.
- Conversely, there is the potential for such a parcel to shrink in area through erosion, owing to gradual wearing away of the soil or encroachment of the water.
- Accretion must be allocated fairly among abutting parcels, by proportioning the bounds, projecting the side bounds to a baseline, or using a hybrid technique, ensuring that all parcels continue to enjoy access to the water.¹⁰

Establishing and re-establishing riparian bounds through survey is very fact-dependent, and thus, fact-intensive. Given the simplicity of the definition of a riparian bound in Ontario, the elegance of the related principles and the plethora of commentaries on the subject,¹¹ I am loath to reinvent the wheel. There is sufficient coal in Newcastle. Rather, let's expose the fallacies that are associated with riparian bounds, inspired by the caution in *Ellard v Tiny Township* (2012) to not commit “the logical fallacy of anachronism.” The fallacy of anachronism consists of projecting 2013 moral and legal principles to a different context (distant in time and space).

¹ This is a truncated version of a presentation to the AOLS-AGM in Toronto (February 2013). It began life as a presentation to the CIG in Markham (September 2012) and has benefitted from critiques by Ron Stewart and David Lambden.

² This article does not necessarily represent the views of Natural Resources Canada or the Government of Canada. Of course, it might.

³ Hunter, et al. *Friend of the devil*. Grateful Dead. 1970.

⁴ Rosenblatt. *Kayak morning*. 2012.

⁵ Pratchett. *Snuff*. p.277. 2011.

⁶ I am indebted to Hugh Goebelle OLS, CLS for this pithy “sin-inversion” observation. September 2012.

⁷ Of course, I am remiss not to refer to the fallacy linking the devil to watercourses: That the Inferno is exclusively hot (e.g. burn in hell; fire and brimstone). Rather, in the Fifth Circle of the Inferno, the wrathful and the sinful fight on the River Styx and sink to the bed of the River Styx, respectively.

⁸ *Walker v. Ontario* – SCC (1975).

⁹ CLSR Plan 67082.

¹⁰ *Andriett v. County of Strathcona No 20* – Alta CA (2008).

¹¹ See: *La Forest*. *Water law in Canada*. 1973. Lambden. *Water boundaries – Inland*. Chapter 6 in *Survey law in Canada*. 1989. Lambden & de Rijke. *Legal aspects of surveying water boundaries*. 1996. Stewart. *Surveying water boundaries: Not a simple task*. 2005. de Rijke. *Water boundary issues – eastern Canada*. 2011.

PART C – RIPARIAN BOUNDARY FALLACIES:

Some of the 13 riparian bounds fallacies (deceptions, errors and unsubstantiated assertions) that follow are overt, explicitly set out in conversation, in writing, on survey plans, through field practice and in policy. Others are covert; they can be inferred through action and inaction, sometimes in policy and sometimes in practice. Thus, most of what follows is empirical; a few parts are somewhat speculative.

1. **Fallacy of geography:** That riparian bounds are consistent in location across Canada. Witness the debate that rages over title to beaches between proponents of water's edge¹² and proponents of edge of vegetation.¹³ Each is correct for his/her jurisdiction and each tries to foist on the other.¹⁴ Rather, water's edge is the riparian bound in Ontario¹⁵ and for lakes in New Brunswick.¹⁶ Eight other provinces use the edge of terrestrial vegetation as the riparian bound, based upon statute, statutory interpretation by the courts,¹⁷ survey practice and Crown policy. New Brunswick uses *ad medium filum* for the boundary on non-tidal watercourses.¹⁸
Many of my colleagues have asserted since 2011 that neither water's edge nor OLWM are used on Canada Lands; that OHWM as reflected in the vegetation edge is used consistently across all Canada Lands; and that water's edge is inappropriate as a boundary. Surely, Brebeuf was martyred, Bethune doctored to his death, Parks sat at the front of the bus and Mandela laboured in the quarry to end such bigotry, prejudice and intolerance. Was their sacrifice in vain?
2. **Fallacy of parochialism:** That unpalatable principles from other jurisdictions in Canada are inapplicable in Ontario. The Alberta Court of Appeal has affirmed twice that accretion cannot extend a riparian parcel beyond the nominal parcel, such as a 1/4 section of 160 acres or section of 640 acres.¹⁹ What of a parcel in Ontario defined as all that part of the north 1/2 of lot 4, concession 3, lying north of the Shibboleth River, if the river gradually moves south out of the lot? Surely the parcel does not extend across the concession road so as to follow the river into concession 3?

3. **Fallacy of Ozymandias:** That riparian bounds, as "monuments in their own right"²⁰ are the best, least fallible, "considered the safest boundary of real estate."²¹ Such assertions invoke the traveller from an antique land who saw "Two vast and trunkless legs of stone ... and on the pedestal these words appear: 'My name is Ozymandias, king of kings: look on my works, ye mighty, and despair!'"²² Rather, yes and no. Yes, riparian bounds are both natural and "readily accessible to surveyors."²³ However, they are often difficult to re-establish on the ground, have the potential to move in location, and have the potential to change character (to become fixed in location if the water moves quickly).²⁴
4. **Fallacy of the obvious:** That all parcels that touch water are bounded by the water's edge and thus enjoy riparian rights.²⁵ Rather, it is dependent on the intention of the grantor and the description of the parcels. The Gull River Reserve has a rectilinear southern boundary that merely crosses a river thrice, and 1/4 section and legal subdivision parcels in Saskatchewan were granted partly as upland and partly as well-defined bed. Also, it might well be that a parcel was not riparian when created, but owing to geophysical erosion (either gradual or quick) it is now partly submerged.²⁶
5. **Fallacy of permanence:** That if created as a riparian parcel, then always a riparian parcel. Rather, riparian rights are dependent on the parcel touching the water. If a strip of land exists between the parcel and the watercourse through the development of an island²⁷ or through legislation (*Great Lakes Shoreline Right of Passage Act*²⁸) then the parcel ceases to be riparian. Nature is capricious.
6. **Fallacy of being law abidin':** That surveyors' practices and customs reflect legal principle. Rather, there are many examples in Ontario of surveying to the HWM in the face of consistent case law since the 1850s that water's edge is the boundary and that high water is not a boundary.²⁹ Along Lake Erie between 1890 and 1905, Ross OLS was "dedicated to the principle of the high water mark."³⁰ Along the Ottawa River, the "conventional wisdom" was to use high water mark

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¹² de Rijcke. Does a presumption exist that a natural boundary is located at the water's edge? *Geomatica*. v64-n2. pp.257-264. 2010.

¹³ Ross & Hopley. The water's edge and the ripple effect of judicial error in the Common Law. *Journal of Environmental Law & Practice*. v16. p.239. July 2006.

¹⁴ Cole. Boundary surveyors and scholarly activity: Mutually exclusive? *Geomatica*. v65-n4. pp.404-405. 2011.

¹⁵ Walker v. Ontario - SCC (1975)

¹⁶ Merriman v. New Brunswick - NBCA (1974).

¹⁷ Lawrence v. BC - BCSC (2010); Flewelling v. Johnston - Alta CA (1921); Resort Village of Island View v. Romashenko - Sask CA (2010); Miller v. BC - SCC (1975).

¹⁸ Boyd v. Fudge - NBCA (1964).

¹⁹ Pitt v Red Deer - Alta CA (2000); Johnson et al v. Alberta - Alta CA (2005).

²⁰ Lambden. Water boundaries - Inland. Chapter 6 in *Survey law in Canada*. 1989.

²¹ de Rijcke. Does a presumption exist that a natural boundary is located at the water's edge? *Geomatica*. v64-n2. pp.257-264. 2010: Quoting Angell (1877).

²² Percy Bysshe Shelley. 1818.

²³ Walker v Ontario - Ont HC (1971); para 13.

²⁴ Stewart. Surveying water boundaries: Not a simple task. 2005.

²⁵ I use riparian rights to represent only those things are that are important to re-establishing boundaries - the doctrines of accretion and erosion. Of course, a parcel with a non-riparian boundary can enjoy access to the water.

²⁶ Volcanic Oil & Gas v. Chaplin - Ont CA (1914).

²⁷ Queens County v. Cooper - SCC (1946).

²⁸ Bill 103 before the Ontario Legislature, passed first reading on June 6, 2012.

²⁹ Parker v. Elliott - Ont CA (1852).

³⁰ Ontario v. Walker - Ont HC (1971); para 33.

as the boundary until the 1970s.³¹

This fallacy is predicated³² on all land surveyors being qualified to render a riparian boundary opinion. Rather, research reported in *The Onion* reveals that only 62% are qualified to render such an opinion (38% of people are neither entitled nor qualified to have opinions).³³ The remainder lack both the will and the experience, forged on the anvil of rigour, succoured by educational seminars and tested by adoption by other surveyors and by the courts. To wit, 20 provincial land surveyors were recently canvassed for their experiences in re-establishing riparian boundaries; 50% of respondents were comfortable abdicating such responsibility to the province and a further 15% of respondents avoided such surveys.³⁴

7. **Fallacy of nature:** That artificial regulation/control of water (primarily raising levels by people) means that flooding has occurred, that the water has encroached quickly, and that the riparian boundary is now fixed in a submerged location. Rather, the effect on the boundary depends on the effect of regulation. If it is merely to hold water back during spring to avoid downstream flooding (as on the Qu'Appelle River), or to smooth natural fluctuations according to a rule curve (Lakes Simcoe and Couchiching),³⁵ or to reduce summer highs and increase winter lows so as to produce electricity (Peace River, Kootenay Lake) then there is no sudden encroachment of water. The riparian boundary continues to have the potential to move gradually.
8. **Fallacy of temporal consistency:** That government action is consistently hailed or assailed. Rather, there is little consistency. On the one hand, the 1911 *Beds of Navigable Waters Act* is usually hailed as a good thing, because it asserted the public right in the beds in the public interest (electricity generation).³⁶ On the other hand, the 1940 amendment to the Act that imposed HWM in Ontario for 11 years is usually assailed as a bad thing, because it represented expropriation of private beaches without compensation ("... the amending clauses were seen by the public to be confiscatory").³⁷
9. **Fallacy of attitude polarization:**³⁸ That showing HWM (back of beach) on a survey plan means that

a strip of riparian land was excepted from the area that was subdivided.³⁹ Rather, the character and location of the boundary is entirely dependent on the intention of the subdivider/developer. Did he/she intend to retain the beach or to create new, smaller, riparian parcels?⁴⁰ It is also dependent on the era – Was the survey done between 1940 and 1951 when legislation set out HWM as the riparian boundary (see plan of part of Lot 47 & 48, Front Concession, Township of Plympton)?

10. **Fallacy of anachronism:** That actual navigability at the time of survey or grant decides whether the bed vests in the Crown (BNW Act). Rather, the test is relaxed in three ways: If the parcel is capable of navigation at the present time using any means (including recreational floats) then the watercourse will be inferred to have been navigable at the time the parcel was created.⁴¹ Of course, the inference might not be made if there is evidence that the watercourse was non-navigable at the time of the Crown grant, but evidence of such kind is rare.
11. **Fallacy of infallibility:** That all riparian boundary cases (disputes decided by the courts) establish principles. Witness the kerfuffle caused by the *Ellard* and *Lackner* decisions⁴² rendered 12 days apart in July 2012, in which the courts rendered opposing judgements based on similar facts. Rather, most cases use existing principles and focus the investigation on the facts (what did the landowner intend, what did the surveyor demarcate, has the water shifted, and so on). For instance, *Canoe Ontario v. Reed* did not set out that a riparian proprietor can block a navigable river with impunity.⁴³
12. **Fallacy of tidal consistency:** That OHWM/MHWM is used exclusively in the tidal regime to define the boundary between the upland parcel and the foreshore (which vests in the province). Rather, at least six national parks use low water as the boundary; four use OLWM, one uses LWM and one uses average LWM.⁴⁴
13. **Fallacy of Rousseau:** That First Nations did not have parcels - riparian or otherwise; "the idea of boundaries is a Eurocentric principle."⁴⁵ This fallacy is reflected in the Jean-Jacques Rousseau⁴⁶ lament:

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³¹ *Lackner v Hall* – Ont SC (2012); para 41.

³² Strictly speaking, this is an independent fallacy, but I was constrained to 13 fallacies.

³³ According to Chicago's School of Behavioural Science. *The Onion*. Issue 43-21. May 23, 2007.

³⁴ One of the results of a study that the Surveyor General Branch of NRCan commissioned in March 2010.

³⁵ Stewart. *Surveying water boundaries: Not a simple task*. 2005.

³⁶ Benedickson. *Private rights and public purposes in the lakes, rivers and streams of Ontario, 1870-1930*. Chapter 7 in *Essays in the history of Canadian law*. 1983.

³⁷ Lambden & de Rijcke. *Legal aspect of surveying water boundaries*. p.162. 1996.

³⁸ Lord, et al. *Biased assimilation and attitude polarization*. *Journal of Personality and Social Psychology*. 37(11). pp.298-2109. 1979: "The mere availability of contradictory evidence rarely seems sufficient to cause us to abandon our prior beliefs or theories."

³⁹ *Ellard v. Township of Tiny* – Ont SC (2012).

⁴⁰ *Lackner v. Hall* – Ont SC (2012).

⁴¹ *Re: Coleman and Ontario* – Ont HC (1983); *Simpson v. Ontario* – Ont SC (2011).

⁴² *Ellard v. Township of Tiny* – Ont SC (2012); *Lackner v. Hall* – Ont SC (2012).

⁴³ *Canoe Ontario v. Reed* – 1990 (Ont Sc).

⁴⁴ Wapusk, Forillon, Ivvavik, Aulavik, Auyuittuq and Quttinirpaaq.

⁴⁵ MacLaren, Barry & Sangster. *Tsilhqot'in Nation v. British Columbia*. *Survey Review*. 43(320). pp.123-136. 2011.

⁴⁶ Rousseau. *The Social Contract & Discourses*. 1762.

The first person who, having enclosed a plot of land, took it into his head to say this is mine and found people simple enough to believe him was the true founder of civil society. What crimes, wars, murders, what miseries and horrors would the human race have been spared, had some one pulled up the stakes or filled in the ditch and cried out to his fellow men: “Do not listen to this imposter.”

Rather, First Nations revelled in non-Eurocentric parcels,⁴⁷ and enjoyed rights attached to those parcels that were both exclusive and hereditary (e.g. fishing sites around the Salish Sea⁴⁸). Closer to Markham, Ontario, five substantial Huron villages have been excavated, dating from the 1400s to 1600s, each with areas of 4ha and populations of 2,000.⁴⁹ They were located along various watercourses, including the Humber, the Don and West Duffins Creek and had boundaries demarcated with wooden palisades up to 10m in height: “A social boundary of some importance; if necessary it can be defended.” Aboriginal peoples continue to define and demarcate their own boundaries. To believe otherwise is to engage in a conspiracy of Swiftian proportions⁵⁰, akin to the 9-11 Truthers.⁵¹

D – BONUS FALLACY:

14. That “Toronto” means either the meeting-place at the mouth of the Humber River⁵² or the swaying trees on the peninsula/islands.⁵³ Rather, Toronto is named for the fishing weirs that have existed at the narrows between Lakes Simcoe and Couchiching for some 4,500 years. The Mohawk word *ktaronto* means “where there are trees standing in the water,” and refers to the stakes used to make the weirs.⁵⁴ The weirs appear in the historical record in

1615, as Champlain journeyed past: “... a strait, where the great catch of fish takes place by a means of a number of weirs which almost close the strait: leaving only a small opening where they set their nets in which the fish are caught.”

Given the absence in French (and English) of the *kt-* sound, *taronto* began to be associated with various watercourses and places soon thereafter:⁵⁵

- Bernou’s map of 1680 showed Lake Simcoe as Lac de Taronto (lake of the fish weirs).
- Belmont’s map of 1680 showed Lac de Tarenteau (Lake Simcoe) and R de Tarenteau (the Severn River, flowing from Lake Couchiching to Georgian Bay).
- Coronelli’s map of 1688 showed Lake Simcoe as both Lac Taronto and Les Piquets, a reference to the pickets that comprised the weirs.
- By 1686, the canoe route between Lakes Ontario and Simcoe, via the Humber and Holland Rivers was known as Passage de Taronto.
- Lahontan referred in 1697 to Georgian Bay as Baie de Toronto.
- Del’Isle’s map of 1730 showed Lake Simcoe as Lac de Taronto.
- Mitchell’s map of 1755 showed both Toronto L (Lake Simcoe) and Ft Toronto (at the mouth of the Humber). The fort was established in 1720.
- By 1764, Lake Simcoe was known as both Lake Toronto and Lac aux Claies (corrupted to Lac de Clies, from the French word for wattle or screen).
- The settlement on Lake Ontario is referred to as Toronto in 1785 and Torento in 1788.



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⁴⁷ Ballantyne. Aboriginal title in Canada: Boundaries, parcels & lessons for Sámi lands. NACS Text. 2013.

⁴⁸ Wadewitz. The nature of borders: Salmon, boundaries & bandits on the Salish Sea. 2012.

⁴⁹ Birch. Coalescence and conflict in Iroquoian Ontario. Archeological Review from Cambridge. 25(1). pp.27-46. 2010.

⁵⁰ Scene: A coffee shoppe in London, 1713. The just-signed Treaty of Utrecht means that vast swaths of Canada will be available for colonization, and a group of drinking buddies - the Duke of Wellington, the Earl of Sandwich, Lord Chesterfield, Sir Cardigan and Jonathan Swift - imagine vast markets for their wares. Four of them dream of foisting their inventions - footwear, food, sofas and sweaters, respectively - on an unsuspecting Aboriginal population. Their table-mate, Swift, has nothing to offer except satire. Desperate to save face among his cronies, weary of their abuse (“Hey, Swift, the demand must be staggering for clever words in a land that has 27 words for snow”), he harks back to a boundary dispute on his patron’s estate, and fixes on parcels. “That’s it, you wankers,” he exclaims, “I hereby claim the right to foist parcels on Aboriginal peoples in Canada.” “Brilliant,” responds Chesterfield, with just a hint of envy, because he realizes that sofas are useless without parcels on which to place them. What follows is 300 years of parcel-foisting by Swift’s agents and successors.

⁵¹ Taibi. The great derangement. 2005.

⁵² Scadding. Toronto: Past and present. 1884.

⁵³ Smith. Sacred feathers: The Reverend Peter Jones (Kahkewaquonaby) and the Mississauga Indians. p.20. 1987.

⁵⁴ Steckley. Toronto: What does it mean? Arch Notes. 92(3): 23-32. 1992.

⁵⁵ Allen. Wa-nant-git-che-ang: Canoe route to Lake Huron through Southern Algonquia. Ontario Archeology. No.73. pp.38-68. 2002.

Sites to See

Earthcache

www.earthcache.org

An EarthCache is a type of geocache that is listed on www.geocaching.com. EarthCaches use additional guidelines when developed so that they provide a unique experience - a learning experience about Earth science! The Geological Society of America (GSA) administers the listing of EarthCache sites around the world, see www.geosociety.org.