JGW-2 SOUTH ASIA

James Workman is a Donors' Fellow of the Institute studying the use, misuse, accretion and depletion of fresh-water supplies in southern Africa.

ICWA LETTERS

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Knifing Opportunists:

The Struggle to Fill the Vacuum Along Africa's First Regulated River

By James G. Workman

April 1, 2002

CAPETOWN, South Africa–Because of the flow of the water, they say a man can't dip in the same stream twice. In arid southern Africa he's lucky if he can dip even once. Water that flows year-round here seems rarer than a diamond field and almost as hard to access. Jealously guarded but never possessed, a perennial stream becomes the real timeless constant. What changes is man.

Consider the Liesbeek River. As it descends from its Table Mountain source to its Atlantic-Ocean confluence, it slices through layer after layer of human tenure. Drawn by the stream's reliable flows, each new 'tribal regime' has displaced former inhabitants, then established its own rights and authority to use it. The Liesbeek's flow tells a national story: access to rivers determines the fate of South Africa itself.

Near the top of the mountain you hike past spring-fed plants and animals (hyrax, baboons and antelope) once gathered and hunted by the San (or Bushmen). Later you tread the same stream-bank paths once trod by Khoi nomadic herders coming to water their cattle. You cross reinforced bridges and now-filled-in canals left over from the age of Africa's first Dutch wine farms. You note dams and mills and breweries exploiting the river to supply the booming industrial



The Table Mountain 'Table-cloth' – source of the Liesbeek River

British Cape Colony. At one point you trace the outlines of a cricket field that once formed the heart of a vibrant 'Coloured' neighborhood before cool, well-watered land grew so valuable that they were shoved out under apartheid's Group Areas Act. Soon you stand atop channel walls constructed by the National Party's apartheid government seeking to engineer and tidy up the 'messy' river as it sought to engineer and control the 'messy' peoples.

And now? As 100,000 new immigrants converge on Cape Town each year, compounding pressure for finite waters, who own access to the Liesbeek, this microcosm of the nation?

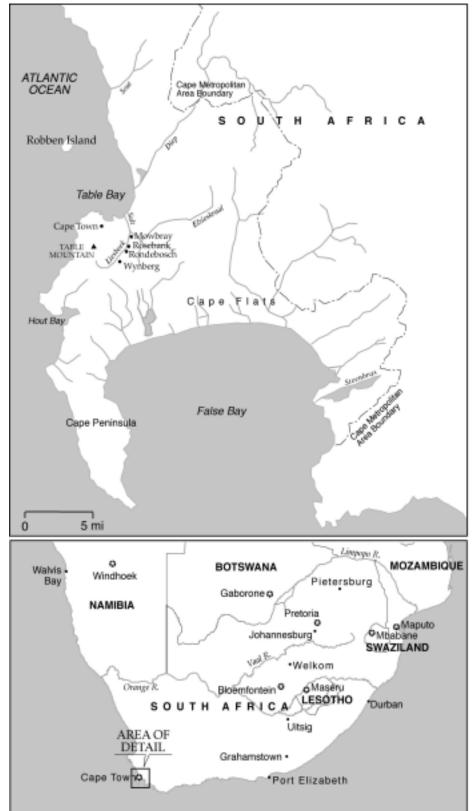
Under the landmark 1998 South African Water Act *all* 'tribal regimes' have free and equal and open access to the same stream. In theory this reform — exclusive, orderly, dictatorial restrictions exchanged for inclusive, tolerant, democratic access — is entirely for the good. In practice the exchange leaves an unstable vacuum, which nature abhors but opportunists exploit.

If local communities don't fill that vacuum together voluntarily, the river's most self-serving and aggressive species may fill it at random and by force. Each new day defines the struggle for the stream. As I walk the Liesbeek with local community guides we meet opportunists, rich and poor. We approach from opposite directions wielding knives with different motives and at the confluence two of us are mugged with one stabbed. Literally.

* * *

Atop the mountain I watch February's summer sun heat the Agulhas Current to separate saltfrom fresh-water vapor that a gentle southeaster carries inland, rising up Table Mountain's east face where cool air condenses mist into a white cloud called the 'table-cloth' that shifts and silently collides against petals and ferns and sage-like *fynbos* until drops bead up and slide down stems through the thin soil past roots sinking into porous-rock cracks out of sight, only to trickle out unexpectedly from under moss as a rivulet that merges and merges and re-merges, giving birth at last to a stream.

Friends of the Liesbeek welcome us both — the stream and I — below. I shake hands with Liz and Dave Wheeler (chair and secretary), Martin and Beth Reitz



(treasurer), and Belinda Grewe (Pinelands chapter, the Friends of the Liesbeek). I've known many "Friends of..." river-support groups in the US, each sure that while all streams are created equal, theirs is more equal than others. But the Liesbeek's journey is not epic like that of the Nile. It is not particularly beautiful along most of its 11kilometer journey. Its waters live less than a single day. Yet as it traverses Africa from the Indian to the Atlantic Ocean, out of pristine diverse wilderness into asphalt jungle, it cuts through Africa's oldest, most economically stratified and water-stressed city.

To ensure its safe passage, our merry band of river

vigilantes patrols the stream, educates residents, hacks weeds, organizes cleanups and leads clueless Americans on safaris like this one. In short, they build a broad community alliance to fill the river-ownership vacuum as fast as they can. Ten years ago, as apartheid gave way to democracy, the FOL did not rise up against the new government. They rose up in place of it.

"Water is equity, an asset that should not deteriorate," says Liz Wheeler. "But the government is now spread so thin. It is being restructured, and much, like this river, gets lost in the shuffle. They know about its problems, but explain that their priorities lie elsewhere." Thinking of those problems, she adds, "As they rightly should."

Our priorities here involve the ongoing ferocious competition for water-access between plant and human species. The Friends walk me through historic struggles between 'Hottentots," Dutch, British, 'Coloureds,' Afrikaners and the current African National Congress (ANC) administration who have all at various times gone to court over competing claims to the land. Yet the FOL is concerned only with claims to the water. These include claims to that water filed on behalf of the river itself.

How can a river 'claim' water? And how much water does it need? Answers are emerging, driven by that same landmark 1998 Water Act's bold new priority called "The Reserve": the amount of water that must stay in the stream to meet basic human needs and to sustain the river's ecological functions for society. On paper, it embodies one of the most progressive pieces of water legislation in the world.

On the river bank, my guides struggle to translate INSTITUTE OF CURRENT WORLD AFFAIRS

words into water. "Under the law, whoever wins title to the land in this area must preserve the integrity of the stream," says Liz Wheeler. "Mobilizing people from land toward the river isn't easy. It's hard to get anyone to take responsibility, even if they live next to the water. They don't see the link. But we all need to rehabilitate it together, if any real sense of community is to survive."

Rehabilitation can't be done in courtrooms or talkshops alone. So as we walk along this upper-stream segment, the discussion turns from the past and abstract goals to the present and tangible work. Decades ago people were classified as invasive aliens and ruthlessly

FOL on Patrol: Vigilante Group Reports Abuses discriminated against by the government. Now, plants are classified as invasives, and face a similar fate from we god-like gardeners of this watershed, who prosecute weeds as judge, jury and executioner.

> It goes like this. Someone casually points to an unusual, pretty, flowering plant, and asks, "Liz, is that one indigenous?"

> She squints. Perhaps she brightens: "Oh, yes!" And sings out its name: wild garlic, palmiet, Cape Glaxis, wild almond, yellowwood, Khoihut, kapok bush, sour fig and wild rosemary... If so, it lives, using the same amounts of water as it has for millennia.

> We walk on. Minutes later we stop: "Liz, what about this one?"

> Now her face darkens. We detect morning glory, oak seedling, Kukuyu grass (favored for lawns, expensive to keep up) or, in this case, Lantana, a colorful but invasive



red-flowering plant from Mexico, hard to get rid of. She shakes her head, and looks down. "No."

Alas for it. Judgment is severe but irrevocable. We know what must be done and do not shrink. The men gallantly unfold pocket knifes, grab the offender by the neck, and cut the life out of it as wives nod approvingly. A more ordered wild order grows with each knifed opportunist.

Our war makes sense: Indigenous plants bring back indigenous insects, which bring back native fish and amphibians, which bring back native birds and mammals. But more serious than beauty or biodiversity, some weeds



FOL Knifes Aggressive Opportunists...and, later, vice-versa

(like that mature gum tree) suck up 300 liters a day, far more water than native trees suck, while others (this oak, for example) destabilize the banks of the river, eroding topsoil, compounding problems downstream.

With little water to spare, and urban streams already anaemic, South Africa outlaws invasive weeds as a matter of survival. Responsible and minimal water use is becoming an informal civic standard for determining democratic access; it could help decide whether a species is welcomed to or banished from an urban stream like this.

* * *

It is not long before we run into a solid wall. It rises from below ground, smooth and high and expensive and topped with sharp steel hooks, and has prominent labels about how an armed private-security response will arrive in minutes if you even *think* about trespassing. Since apartheid's invisible walls came down, construction of real walls has become so ubiquitous in South Africa's affluent neighborhoods that you stop noticing them. Yet the FOL notices them more and more, and resents them accordingly.

Walls date back to wooden kraals (corrals) con-

structed in the days of rural settlement. Beth notes wryly that "We don't know whether the Dutch built them to keep cattle in or the Hottentots out." The earliest tribal regimes had no formal system of ownership; land and water were communal.

Not so the Dutch settlers who displaced them, who carved up plots for some of the first farms and vineyards in Africa, then constructed canals based on their experience at home. At least these Afrikaners followed ancient Roman water law (*dominus fluminus*), whereby land is private but water is public and property is set back from its edge.

British Cape Colonists snapped up land and water together under their own law called 'riparianity' which meant that properties could include the stream and water that goes with it. Today this seemingly slight colonial legacy creates massive complications between urban properties, and between rural farmers, and even between African nations.

Intentionally or not, walls fragment the natural flow. Soon the outrage boils over in Liz Wheeler: "You can't just build a wall across a stream and say: 'We're not responsible for the flooding that happens upstream or is cut off below.' The wall acts as a dam, like it or not. It blocks things out. And a river will continue to push it, either here or elsewhere. At some point it becomes a problem."

But FOL's disgust stems from more than environmental impacts. To them, walls embody deep social and psychological barriers that remain in divided South Africa today. They do not brush off the rise in armed theft, rape, carjacking or murder since the end of apartheid. But they feel that walls not only fail to reduce crime, but may actually increase it.

David explains: Walls cut off a home from the street, from its neighbors and from the river that connects the entire neighborhood. All this inward-turning isolation only increases the political vacuum in which criminals can operate free from scrutiny and exposure, which is the only real deterrent.

Trapping people on one side, walls turn rivers into moats on the other. "We take the river for granted here and neglect it," says Liz Wheeler. "We turn our backs and build fences between it and our homes, turning it against us, and us against it." She pauses to glare at a new wall looped with concertina razor wire. "It's the new look."

FOL's solution would be for private interests to pool their private individual security resources. They could then tear down the walls dividing them and find security in turning back toward the stream they share to make the environment a unifying source of a linked, patrolled, neighborhood watch. It is a simple solution but not an easy or inexpensive one. It's a hard sell, but the FOL sees



Walled in, Walled Out: A channeled, barricaded river is doubly insulted

no other alternative, and draws parallels from the river itself.

Faced with winter floods, city engineers of the 1950s built concrete walls to divert and dam and channel the river like a drain. These new solid walls disturbed the river habitat, created an ecological anomaly, reduced the ability of native plants and animals to survive and allowed opportunistic species to move in and take over the river. Only by breaking down those smooth walls, replacing concrete with stones, drilling cores through the paved streambed, can native species take root and begin to reclaim their home in and on the river.

So it might be with the people sharing that river home. "The stream has always been in my life," says Wheeler, her temper cooling by the current. "Lower down, people hate the river. They feel it harbors criminals and floods. But they don't know what they've got. It is an environmental, aesthetic and recreational asset. There should be some way to reconnect to it."

After enduring weeds and walls, the Liesbeek River hits its most insidious affront. Walking along, we notice sandbags and rocks strewn not so casually across the river. At first it seems random, then quite deliberate. It is a manmade weir, the work of an amateur. It is crude, not engineered, made to look almost accidental. It doesn't block the river, just slows it into a "head" high enough to linger. We climb down the bank and look closer.

There is a low-pitched hum, which we trace to a partially buried pump. Then, creeping from under rocks, submerged in the water, winds a thick black tube with a filter screen on the end. Sucking, constantly. We follow it until it plunges beneath the wall, toward an estate whose worth we estimate at roughly \$6 million.

Nor is it the only hidden hose pump. We stumble across three others in the parts we can see, where we have access to the river. To me, this is illegal. The FOL aren't so sure. They'll report it, but feel unable to do more. Says Dave Wheeler: "The law says no one can informally withdraw from a common river to the detriment of the river's health or to the disadvantage of those downstream."

But how, I ask, does anyone determine when that line is crossed? The answer is simple. They don't. Even if the hose pumps were removed, there is no way to check whether affluent owners throughout the river catchment don't just drill boreholes and pump groundwater that feeds the stream's surface flow.

"Sharing water has been poorly construed, and we are unable to tell, through laws or regulations, who pumps water out of the river for residential gardens, swimming pools, or whatever reason," says Kevin Winter, an environmental scientist at University of Cape Town. "The river doesn't give that kind of feedback, nor, for obvious reasons, do the more affluent residents behind their walls."

In other words, there is nothing to prevent the rich from avoiding high water bills by sucking directly from the river itself. Says Winter: "Even on this, the most closely studied river in South Africa, there is no way to compare the water going in with what comes out, or track down the estimated 28 percent of water that goes unaccounted for. Consequently the authorities can't tell what withdrawals are done where, illegally or not. It's just done."

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It grows hot, hovering around 81 degrees in the shade. After resting, taking deep swigs of water and sharing a beer, we stand and press through the final stretch.

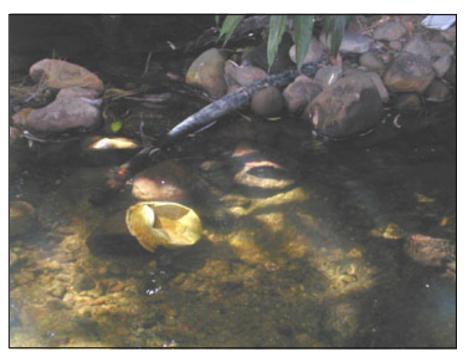
As we pass from Claremont to Newlands I note that alone among rivers on the Cape the Liesbeek has a long, rich and written story, which the FOL celebrates chapter by chap-

ter on markers installed to bolster pride in the river's heritage:

- Marker #5 shows the banks of the Liesbeek as a transport route, from herder trails in 1500, to horse and buggy in 1850, to a rail line in 1900, to motor cars in the 1950s.
- Marker # 7 alerts us to the 100-year-old Starke-Ayres nursery.
- Marker # 8 points out the bridges across the river, begun in 1868.
- I learn how "the free, abundant clean water provided an ideal location for making beer, at the Anneberg Brewery, tapping Newland Spring in 1884." Or how Ohlsson's Brewery Yard in 1907 gave rise to "Irishtown,' a neighborhood first settled by brewery workers.
- Walking further, I find how the current once powered Josephine Mill, and Dreyer Mill, dating to 1818.
- Still further, I am refreshed to find the Schweppes factory, which has tapped pure Albion Spring to bottle mineral and tonic water for decades.

But then we come across a dozen vagrants or squatters (known locally as "burghies") who are living, for now, by the river, sandwiched between residents, walls and offices. They leave litter. They breed resentment. One of those rapid-response armed private security guards is chatting with several vagrants. But he is polite with them, even respectful. He has little legal ground to maneuver and simply lets them know he's around.

These are only the most central of more than a mil-



Do-it-yourself water withdrawal: wealthy estate sucks up river for free

lion of the city's 'informal settlements.' The law can't, won't, and shouldn't touch them, for there is no formal structure to evict. In terms of legal access to the stream, this is not private property, but rather the public space along the river, which they control as much as anyone else.

The squatters here wash, sleep, cook and eat by the stream. They likely even drink the water, which looks perfectly fine (aside from that trashed IBM computer monitor sitting upright midstream). It sounds mellifluous as it glides past. But there is a whiff of urine and of feces on the bank, for the city has removed public toilets to discourage squatting. Rather than move on, they make do. This increases the filth, but in coming months rains may eventually wash it away, downstream. Where it becomes someone else's problem.

One of the vagrant squatters approaches. I expect him to panhandle, but he doesn't. He is a friendly Cape Coloured man, slightly inebriated. He tells me, about five times, that his name is Spalding. "Like the American golf company. Do you golf?" I tell him I don't, which puzzles him. He says he thought all Americans golf. He tells me he once lived on a farm in Namaqualand, but was pushed out from there. He lived outside the city, and was pushed out from there. Now he's here, and plans to stay.

So is he indigenous or opportunist? Some might say he is part of the problem, like the proliferation of weeds, walls and water withdrawals upstream. Others suggest he can eventually join the native community, here in 'noman's-downstream,' the political vacuum we have begun to enter.

It's a difficult but not a new problem. The Liesbeek's history traces it back to 1852, where Ordinance # 6, 'to

prevent the Commission of Nuisances in the River Liesbeek' proclaims:

- All dams are to be provided with a sluice
- No person is allowed to build a toilet too close to the river; or allow sewage, or the offal and blood of slaughtered animals...
- So that people will be able to get occasional supplies of clean drinking water, no washing can be done in the river before 8am in the morning between September and March
- The penalties for contravening any of these regulations are either a fine of between 2 and 20 pounds, or imprisonment of between one and three months, with or without hard labour.

Exactly 150 years later, in this brief stretch of the river, amid computer graphics firms and within earshot of paidaccess swimming pools, it seems little has changed.

Our walking safari of six passes beyond the historical area of the Liesbeek, along the tracks, through Rondebosch, over Belmont Street into Rosebank, then along the Parkway in Mowbray. The river here is canalized to protect the roads, but there has been some progress in creating small gestures toward its former natural habitat. I see fish-shelter cores drilled through the bottom concrete to the ancient streambed. I notice new wooden ramps for ducklings to get over weirs that aerate the water. A crab scoots across the bottom. I even see some fish, startled by our afternoon shadows, surge upstream.

So, I think. Given a chance the Liesbeek can support life.

As we approach the confluence with the Black River, the FOL point out a recent, post-apartheid measure of progress. Five years earlier, developers of the River Park office complex on the eastern banks of the Liesbeek provided financing to build a large, artificial wetland. It would store water, reduce flooding impacts, purify water and provide a habitat ecology.

Despite grumbling about cost, the project went ahead. Now the wetlands appear to be working. The vegetation has taken off, appears more natural than man-made and I smile to watch several ducks paddling around, preening, fluffing tailfeathers, diving for fish or bugs. Yet even here some worry. The invasive alien species of European white duck (opportunist) has begun interbreeding with the indigenous African black duck (native).

Perhaps the best indication that the artificial wetland is working is not in native plants or animals, but humans. Here out in the open spaces we come across several families playing in the water. Another group is doing laundry, scrubbing it in the water, laying it out to dry on the exposed banks. The wind has increased even more; I have to remove my hat to keep it from blowing away. Combined with the heat, wind dries everything quickly and dehydrates us.

"Months ago right here," recalls Liz Wheeler, "I came across an old woman with seven kids, or grandkids. They'd walked all the way from Athlone, miles upstream on the Black River, to swim here. They had been here for hours and I didn't have the heart to tell them the water might be toxic. But then I saw them carrying jars of water; assuming this was for drinking, I drew the line. I called out to them, and went to warn them. Only closer



Crab scuttles across river bottom did I see that they had fish swimming in them. They were bringing them home to be pets."

I recall the lesson from the headwaters: restoring native plants will bring back native insects, birds, fish and amphibians. It's working, I think. Then add one more native species: *homo sapiens*, with the moral choice to join a water-based community or become an opportunist.

With only a kilometer to go, Martin and Beth Rietz split off to retrieve their car, left nearby earlier this morning. In the grass, a thin Coloured vagrant appears to be sleeping, drawn to the river like so many of us. Few of us notice, He stands, stretches and follows.

Four of us proceed through Two Rivers Urban Park, toward a driving range and artificial island with indigenous plants. Liz is talking about the past of the nearby Cape Observatory but it is hard to catch her words, the wind has grown so strong. We are standing on a bridge, watching a boy play in the water. He is poking the carcass of a large carp when Beth drives up, alone, speaks quickly to Liz, and drives off.

We learn that the vagrant followed Martin and her, weaving behind them casually. When they reached the car, Martin unlocked the doors, and took out his cell phone. The vagrant made his move. He took out a knife, demanding money. They began to comply, but evidently



Working the wetlands: Laundry on urban river amidst 3 million people

not fast enough. To show he was serious, the man stabbed Martin through the hand. The couple requested he take their money out of the purse and wallet, but leave the cards and licences and keys. He agreed, but then took Martin's own favorite pocket knife, used for decades to cut those invasive alien weeds. Then the man ran off.

I might chalk up one for the opportunists, if this event drove Beth and Martin into exile overseas, or to build a wall, or to abandon river walks. Yet they remain undaunted. She takes him to the hospital then drives up to insist that the rest of us finish our journey. In that spirit, we continue, down past the River Club, to the Raapenberg Bird Sanctuary, trying to ignore upstream violence, and focus on the last minutes of life left in this river.

Near the confluence, Egyptian geese, Ibis and spoonbill rise off the water, circle back, alight on the banks of the river and wait for dusk. It begins to cool, ever so slightly. The waters we have followed are less than a day old, yet here the river already seems tired, beaten, degraded, tame. It flows straight, down a man-made canal, under the N1 and R27, to enter the Atlantic next to the warehouses and a massive windowless building called Cape Cold Storage. At its mouth I watch it simultaneously die and be baptized and cleansed in the vast cold saltwater sea. Then I too circle back over the river.

Moments before we part, Liz reminds me of the Cape's origins. A century ago, the same scattered independent colonial villages we walked through — Rondebosch, Wynberg, Salt River, Woodstock, Mowbray — decided to turn their legal and fiscal walls inside out. Combining efforts, they built small Table Mountain dams, and managed their water flows for the shared security of all. Perhaps history can repeat itself. Perhaps water-scarce fear can turn into water-ordered community to rebuild the city from within, integrated not by language, class, race, religion, or past...but by how they access the river they share.

Still, driving home, I see walls rise everywhere. As I cross the Liesbeek, Beth's earlier comment haunts me: "You can engineer and build as you please. But in the end the river is going to do what it will. Go where it wants to. Seems it has a mind of its own."

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