

BAILIWICK NEWS

Reporting and critical analysis of Centre County public affairs

June 13, 2017

The battle for the Slab Cabin Run watershed and the political and ecological future of the Centre Region

By Katherine Watt

Part 10B – final installment – of a 10-part series on water and farmland protection in the Slab Cabin Run watershed.

INTRODUCTION

For the last five decades, corporate-directed Penn State enrollment growth, state legislature blind-eye turning, and local government-enabled private housing development have been simply the way things are done around here.

And they've been done without explicit reference to the tightly linked ecological and political carrying capacities of the Centre Region.

Both systems are groaning under the strain of rapid growth, and we're at an ecological and political turning point.

These are not conservative or liberal issues. People across the political spectrum value clean water, rural heritage and thriving farm economies, and responsive, accountable, transparent public governance.

Fights like the Battle of Slab Cabin Run flare up between the people who live in a specific place and time, and care about ensuring it can support the generations following in their footsteps, and people who care only about maximizing the wealth they can extract from it.

The Slab Cabin Run water and farmland protection fight serves as a useful case study in government corruption and perverted land use planning in the Centre Region.

But it's by no means the only part of community life so corrupted. It's just the one I spent time researching first, sitting as it does at the intersection of many crucial regional issues, including corporate Penn State's undue and publicly unaccountable influence over our local political economy, especially through institutional enrollment decisions, land flipping and zoning interference; Nittany Valley hydrogeology, public water systems, and farmland preservation; approaching limits on sewage treatment and effluent discharge capacity into Spring Creek; compromised regional planning frameworks; and stressed municipal budgets.

In just the last few years, year-round local households and business owners and transient Penn State students have lived through an erosion of trust in public relationships, especially the breakdown in trust between corporate Penn State and those subject to its private decisions.

We've faced at least four such corporate-community assaults, from the Sandusky child rapes and the Columbia Gas pipeline threat to the Toll Brothers/Centre Region Parks & Recreation Authority water and farmland threat and the hazing death of Tim Piazza.

This breakdown in trust between the governed and the government is not unique to Centre County in the late 20th-early 21st century.

If we want to protect this place for the future – as many, many people who live or visit here do – then we need to start by clearly seeing what we actually have right now.

We currently live with two illusions. Corporate Penn State postures as a public university – hiding behind the well-deserved professional reputations of its faculty – when in fact, for at least the last 20 years, it's functioned more as a profiteering business corporation.

The Centre Region Council of Governments postures as voluntary coordination organization when in fact, for at least the last 20 years it's functioned more as a racketeering system operated by land developers including Penn State.

Here as elsewhere, a big part of the solution is being put in place as citizens learn to trust ourselves and our sense of belonging to the places where we live, and then learn to trust each other, to build networks of social support and counterweights to non-benevolent corporate dictatorships.

That's what's happening through the Battle of Slab Cabin Run. With time out of our lives, letters and signs, tents and bodies and voices, we're writing a meaningful new story about who makes up this community and what we stand for, that fits the facts on the ground better than the corporate platitudes spouted by Penn State spokeswoman Lisa Powers and Penn State President Eric Barron.

What's left when the illusions are pushed aside? A cold-water trout stream, a handful of local legislators, a few brave attorneys and local judges with a little integrity left, and a groundswell of local year-round residents (largely Penn State faculty and staff and their children) and business owners, students and alumni, whose historic, silent fear of corporate Penn State retaliation is slowly turning into clear public demands for our values, needs and interests to take precedence over corporate profit in our shared public life.

Outline

After a couple remaining housekeeping items, covering two current behind-the-scenes conversations about the Penn State/Toll Brothers/Whitehall Road Regional land development plans, this report will offer a broad brushstroke overview of the geological and human history

of the Centre Region, followed by a decade-by-decade account of water/sewer system development, land development, Penn State enrollment, population growth, and political systems.

The series concludes with critical analysis, laying the foundation for future coverage of land use planning, water and sewer systems, and government/Penn State corruption.

Safety assertions without supporting evidence

High-level Penn State administrators and at least one SCBWA board member have been angrily insisting – mostly in private conversations with Nittany Valley Water Coalition (NVWC) representatives – that the development plans for the student housing complex and the active sports park present no risk to public water supplies.

No credible research or consulting scientist has attached his or her name to that assertion in public, however, because the assertion is absurd and scientists value their professional reputations.

When pressed, these high-level local and Penn State officials have admitted that there are no hydrogeological studies specifically assessing the risks posed to the Slab Cabin watershed by development activities at the sites of the proposed Toll Brothers housing complex and Whitehall Road regional action sports park.

A lack of studies is not affirmative evidence of safety.

For the counter-argument, the available studies include decades of hydrogeological research into the complex, interconnected karst limestone subsurface structure and water flows in the Nittany Valley.

The available studies include a 2003 PA Department of Environmental Protection (DEP) report that found that the two main risks to the State College Borough Water Authority (SCBWA) Thomas and Harter wells are “transportation corridors” and “residential and light commercial land development.”

The available studies include 2005-2006 SCBWA dye trace testing along Slab Cabin Run near the two development sites, that showed rapid dye uptake into the Thomas and Harter wells.

The available studies include 2013-2014 CMT Laboratories infiltration analyses at the Toll Brothers site. For those, consultants were forced to use non-standard testing protocols because of the shallow depth to bedrock, and concluded, among other things,

“altering a site’s grading and drainage characteristics can result in sinkholes developing even when surface/subsurface observations reflect little or no potential...the risk of sinkholes developing in carbonate bedrock/karst areas as a result of stormwater infiltration [Best Management Practices] is inherent.”

The science is not unclear. The fractures in the bedrock under the Toll Brothers and Whitehall Road Regional Park sites send stormwater straight into Slab Cabin Run and the related subsurface flows, and from there into the public wells.

What’s been muddied is the weight to be given to the obvious risks of development in the Slab Cabin watershed, a muddying process that began in 2004 when the Ferguson Township Board of Supervisors ignored a cacophony of warnings from regional land use planners and rezoned 26 acres of Rural Agricultural land to R4 multifamily housing at corporate Penn State’s behest.

From at least the late 1960s to September 7, 2004, our community had a fairly strong de facto precautionary principle in place: the Ferguson Township RA zoning, alongside a series of COG comprehensive plans designating the watershed farmland as an “agricultural security area” outside the Regional Growth Boundary.

The nonpartisan public interest in safe drinking water supplies hasn’t changed across those years, and the science about the risk profile hasn’t changed either.

The only thing that’s changed is the risk tolerance of a handful of well-placed Penn State administrators and Ferguson supervisors, in response to the large private profits to be reaped from accepting higher risks on behalf of an unwilling public.

Comparative risk – agricultural runoff v. development

To the extent that local officials make any attempt to address the risk profiles, they’ve sometimes alluded to the contamination already entering the public water supply through herbicides, pesticides and fertilizers (including manure) applied to farm fields in the watershed.

The point is well made.

But the follow-up proposition – that therefore housing and active sports park development would be better for public health than continued farming, is false choice garbage, akin to hitting one’s head with a hammer to lessen the pain of a stubbed toe.

So long as the agricultural soil structure remains intact, farmers can choose to convert to low-chemical or organic and sustainable farming practices.

But once the soil is clear-cut, bulldozed, paved and built up, it’s gone forever.

Preventing that soil loss, more than any other factor in this whole controversy, is what motivates me personally. I want all of that Slab Cabin watershed land available for decades into the future for sustainable agriculture to feed the local population. That’s not what it’s used for now, but if it remains in agricultural production of any kind, it can someday be cultivated into a proximal community Victory Garden: a food and water hedge against hard times that are already upon many of us, and will soon overwhelm many more. (See sidebar).

Housekeeping aside, what follows is a deep dive into where we are, where our water is, and how human-habitation and water source relationships have evolved over time.

Where are we?

The Nittany Valley formed between 325 million and 260 million years ago, during the Alleghanian-Appalachian orogeny of the Carboniferous to Permian periods. The

orogeny, or smashing together of pieces of the Earth's crust, formed the Appalachian and Alleghany mountain ranges, when Africa collided with North America to form Pangaea. Nittany Valley is an "eroded anticlinal valley," meaning it has a folded subsurface that has the oldest beds at the core. (Wikipedia)

According to accounts at the Centre County Historical Society website, the earliest human inhabitants of the Centre Region were Native Americans of the Delaware, Shawnee, Mingo and Iroquois tribes, "planting the valleys in corn and squash, and hunting in the ridges."

Their food was not delivered in petroleum-powered semi trucks from California, and their water didn't come in plastic bottles.

William Penn took ownership of the land and sold parcels to settlers in the 1760s. In the late 1700s and early 1800s, those settlers established farms and mined iron ore, which was processed in furnaces, including Centre Furnace, built in 1791. They cleared thousands of acres of trees to burn wood to make charcoal, and used the local surface streams to power the bellows, grist and flour mills, sawmills, woolen mills and tanneries, and to supply distilleries and breweries.

Their food also was not delivered in gas-powered semi trucks from California, and their water didn't come in plastic bottles.

The region became the primary iron-producing region in the country between 1800 and 1850. By the time coke-fired production of iron in Pittsburgh and Cleveland shut down the last charcoal-fueled furnace in Centre County in 1858, the "gentlemen farmers" had set things in motion to establish the Farmers High School, which has grown into the corporate behemoth now known as Penn State University.

Where is our water?

Nestled in the Nittany Valley, the State College area population depends on groundwater for public water supplies. We are a dense human habitation of about 100,000 people with no large lakes, rivers or reservoirs nearby, which is extremely unusual.

Instead, the entire community from Pine Grove Mills to Milesburg sits at the top of the watershed, on a fragile and complex limestone network of tunnels containing underground springs and streams that run from Shingletown Gap, through a valley bounded by Tussey Ridge on the southeast and Bald Eagle Ridge on the northwest, out through Milesburg Gap.

These underground springs and streams rise to the surface and sink back underground through crevices in the carbonate bedrock geology to create Slab Cabin Run and Spring Creek. The time the water spends underground is the reason why those two waterways can support cold water fisheries.

Slab Cabin Run traverses the Centre Region, as an 11-mile tributary feeding Spring Creek at Houserville. Spring Creek then joins Bald Eagle Creek, which joins the West Branch Susquehanna River, which joins the Susquehanna River, which flows to the Chesapeake Bay.

SIDEBAR – Long-time readers know that I have been in community-disaster-preparedness mode since 2005, when I read Richard Heinberg's book *The Party's Over: Oil, War and the Fate of Industrial Society* and first began to consider the implications of peak cheap, easy-to-extract oil.

Some of the socioeconomic analysts whose data interpretation on finance, energy, critical resource management, geopolitics and civil society I find credible and relevant include: Adam Taggart; Art Berman; Brandon Smith; Charles Hugh-Smith; Chris Martenson; David Stockton; Dmitri Orlov; Doug Casey; Edward Snowden; Eric Zuesse; Gail Tverberg; Glenn Greenwald; Howard Kunstler; John Williams (Shadowstats); Julian Assange; John Michael Greer; John Pilger; M. King Hubbert; Matt Taibbi; Michael Snyder; Mike Krieger; Nassim Taleb; Nicole Foss; Raul Ilargi Meijer; Richard Heinberg; and Ugo Bardi; and Wolf Richter.

Describing our current predicament, Doug Casey calls it the "Greater Depression." Howard Kunstler calls it the "long emergency." Charles Hugh Smith calls it "neofeudalism," with the vast majority of us relegated to the status of debt slaves.

My favorite description is John Michael Greer phrase: the American empire's already-begun slide into "history's compost bin." See, for example, his January 25, 2017 essay "How Great the Fall Can Be."

"This is what the decline and fall of a civilization looks like. It's not about sitting in a cozy earth-sheltered home under a roof loaded with solar panels, living some close approximation of a modern industrial lifestyle, while the rest of the world slides meekly down the chute toward history's compost bin, leaving you and yours untouched.

It's about political chaos—meaning that you won't get the leaders you want, and you may not be able to count on the rule of law or even the most basic civil liberties.

It's about economic implosion—meaning that your salary will probably go away, your savings almost certainly won't keep its value...

It's about environmental chaos—meaning that you and the people you care about may have many hungry days ahead as crazy weather messes with the harvests, and it's by no means certain you won't die early from some tropical microbe that's been jarred loose from its native habitat to find a new and tasty home in you.

It's about rapid demographic contraction—meaning that you get to have the experience a lot of people in the Rust Belt have already, of walking past one abandoned house after another and remembering the people who used to live there, until they didn't any more.

More than anything else, it's about loss. Things that you value – things you think of as important, meaningful, even necessary – are going to go away forever in the years immediately ahead of us, and there will be nothing you can do about it. It really is as simple as that. People who live in an age of decline and fall can't afford to cultivate a sense of entitlement."

The upper Slab Cabin watershed between Pine Grove Mills and State College Borough is the area around the Thomas and Harter wells, where Penn State intends to sell land to Toll Brothers for student housing development, and where the COG has given the Parks Authority funding to build an active sports park.

According to Walter Ebaugh, a retired hydrogeologist who founded Nittany Geoscience Inc. and now serves on the University Area Joint (Sewer) Authority (UAJA) board, roughly 100 million gallons of water flow under our feet every day. Of those, about 10 million gallons per day are intercepted through public, university and private water wells, used in homes, businesses, schools, hospitals and churches, and then discharged through sewage treatment plants, Penn State's spray irrigation system, and the UAJA "beneficial reuse" system including the Gordon D. Kissinger Meadow wetlands, which replenishes Slab Cabin Run near the Hills Plaza Shopping Center on South Atherton.

There are currently seven SCBWA wellfields: Thomas, Gray's Woods, Harter, Nixon, Chestnut Ridge, Alexander and Kocher. Of those, Thomas and Harter are the oldest, drilled in the 1940s and 1950s as local officials began to realize that surface water wasn't able to provide enough to meet demand.

The Thomas and Harter wells are also among the shallowest – requiring the least electrical energy to pump the water up from underground – and the most voluminous, with capacities of 18.3 million gallons per day for the Thomas wells and 8.5 million gallons per day for Harter wells.

Water & Human Cohabitation: Political History

1960s and 1970s

In the 1960s and 1970s, the regional population jumped from 35,100 in 1960 to 53,600 in 1970, to 62,000 in 1980. Driving the overall population, Penn State enrollment grew from 16,200 in 1960 to 26,000 in 1970 to 33,800 in 1980.

Penn State researchers began looking harder at the local water situation, to locate other places to drill with a high probability of striking productive water flows. Two of the leading researchers were Richard Parizek and Todd Giddings, who both published several papers on the unique underground aquifer of the Nittany Valley.

An apartment construction boom accompanied the enrollment growth, pushing the edges of human habitation out into farmland and forests, replacing them with homes, roads and parking lots. Off-campus housing with more than 100 beds built in that period included Briarwood Apartments in 1958, Parkway Plaza in 1960 and Executive House in the late 1960s. Nittany Gardens, Lions Gate Apartments, Toftrees, Vairo Village, Allenway, Armenara, Penn Tower, Alexander Court, Cedarbrook and Beaver Hill Apartments came along in the 1970s.

Each new occupied bed adds 8 to 12 pounds of nitrogen per year to the local wastewater treatment stream through

food processing, urine, and feces, a hard fact unaffected by water-saving toilets, showerheads and appliances.

To deal with the increasing ecological challenges of a growing sewage flow, local officials used public funds to create the University Area Joint (Sewer) Authority in 1964 and constructed the UAJA Spring Creek Pollution Control Facility (wastewater treatment plant) off Shiloh Road, put into operation in 1969 to protect clean water downstream of State College in Bellefonte and beyond, all the way to the Chesapeake Bay.

To deal with the increasing political challenges of governing a growing population, in 1969, local officials formed the Centre Region Council of Governments (COG).

Corporate Penn State owns and operates a separate wastewater treatment plant, off University Drive, which is permitted to treat up to 4 million gallons per day of wastewater primarily from the University Park population.

Penn State also has at least three unelected but voting representatives on COG committees. Rob Cooper of the Office of Physical Plant votes on Transportation and Land Use. Steve Watson of OPP votes on the Planning Commission. Charima Young, Director of Local Government and Community Relations, votes on Parks Capital.

Apart from limited contributions to support regional fire and emergency services, corporate Penn State does not fund COG budgets; taxpayers in the six participating municipalities do. And corporate Penn State does not pay property taxes on university-owned land or buildings within the six participating municipalities; the institution is tax-exempt and pays a limited "fee-in-lieu" of about \$600,000 per year to the Borough of State College. This arrangement saves corporate Penn State \$3.2 million per year, shifting the cost burden for public services to local taxpayers.

1980s

In the 1980s, Penn State began an "experimental" program to handle the sewage flow from the increasing student population living on campus in the dormitories. The program involved spraying treated sewage wastewater in the Fox Hill Road/State Game Lands 176 area. Although the system does not comply with the PA Department of Environmental Protection Manual for Land Treatment of Wastewater – standards to which other public sewage treatment plants using land application for disposal are held – DEP has regularly renewed Penn State's permits ever since.

In the late 1980s, the DEP imposed a moratorium on Centre Region building permit issuance, subdivision approval and installation of new on-lot septic systems, in response to a 1987 report submitted by UAJA showing a hydraulic overload. The overload was not a permit violation, but it did require responsive action by the participating municipalities to figure out how to provide the needed capacity.

1990s

The COG municipalities decided to do a regional Act 537 Plan (more below) to address public sewage treatment planning and on-lot sewage system management, instead of individual plans. Act 537 plans are derived from 1966 state legislation adopted to correct existing sewage treatment problems and prevent future problems.

The COG Act 537 planning process coincided with ongoing UAJA planning for a plant expansion to be able to handle up to 6 million gallons per day (annual average).

The construction moratorium was lifted in 1990, when the COG General Forum adopted a DEP-approved regional Act 537 plan.

The 1990 COG Act 537 Plan identified “sewer service areas” as land parcels to be served in the future by public sewer service. It was adopted alongside a 1990 regional “comprehensive plan” laying out “future growth areas,” which overlapped the identified sewer service areas.

However, corporate Penn State was not then, and is not now, required to participate in the Act 537 planning process, leaving the 4 million gallons per day of Penn State wastewater unaccounted for in regional capacity planning. Instead, Penn State’s system was simply described in the 1990 plan, as handling university and some State College sewage. Penn State’s plant was not overloaded, so even during the DEP moratorium, on-campus construction and some off-campus construction went forward.

In the 1990s, private developers added the Meridian, Nittany Crossing Park Crest Terrace, Nicholas Tower, Lions Crossing and State College Park to the local supply of student apartments.

And the regional population grew from 70,600 in 1990 to 79,400 in 2000.

However, as the decade unfolded, there were several changes in how sewage treatment plants in general – and UAJA in particular – were permitted to operate. By 1992, UAJA had completed upgrades to enable treatment and discharge of up to 6 million gallons per day into Spring Creek, as permitted under a National Pollutant Discharge Elimination System (NPDES) permit.

But in 1994, the Spring Creek Chapter of Trout Unlimited appealed UAJA’s NPDES permit, on the grounds that the large volume of warm water entering Spring Creek was reducing available oxygen and stressing cold-water fish populations: problems likely to intensify with increased discharge.

At the same time, increased pumping of groundwater upstream from SCBWA wells, to supply the growing population, was reducing the baseflow in Slab Cabin Run and Spring Creek, because of the complex connections between surface and subsurface flows.

The baseflow reductions further endangered fish and other wildlife populations.

In 1996, local officials began reviewing wastewater treatment alternatives to handle the increasing demand brought on by rapid population growth without increasing the average daily discharge volume into Spring Creek. One of the options they reviewed was “beneficial reuse,” which would require building a plant to purify wastewater to very

high standards, build pipelines, and pump the water back upstream for non-potable uses and discharge into constructed wetlands supporting Slab Cabin Run.

In 1997 UAJA and two other local sewer authorities, the College-Harris Joint Authority and the Patton-Ferguson Joint Authority, unified.

In 1998, the thermal impact study of the effects of UAJA discharge into Spring Creek on fish and other wildlife concluded, and the DEP permanently capped UAJA discharge at 6 million gallons per day.

In July 1999, DEP published new anti-degradation regulations, eliminating all but two of the 14 original wastewater management alternatives from consideration. One of the two remaining options was the beneficial reuse program.

In August 1999, Bank of New York Mellon sold land to corporate Penn State, situated near the intersection of Whitehall Road and Blue Course Drive. At the time of sale, the land was in the identified recharge area for the Thomas and Harter wells, zoned by Ferguson Township as low-density Rural Agricultural land, outside both the COG Regional Growth Boundary and the Act 537 Sewer Service Area.

This is the land Nittany Valley Water Coalition activists are currently occupying, to block the fall of the first dominoes in a high-density residential cascade.

2000s

In 2000, the COG General Forum adopted an updated Act 537 Plan, selecting beneficial reuse as the preferred option for regional sewage management and setting out new boundaries for the sewer service area, to contain new construction and protect surrounding fields and forests.

The planned beneficial reuse system would eventually pipe treated water back upstream into the upper Slab Cabin watershed, to recharge the depleting aquifer and the surface flow in Slab Cabin Run.

The legal effect of a regional Act 537 Plan is binding: it constrains the actions of the sewer authority until the next update is adopted, limiting construction to infrastructure identified in the active plan.

That same year, General Forum adopted an updated Comprehensive Plan, reinforcing the SSA boundaries with Regional Growth Boundaries, again, to contain new construction near existing infrastructure and protect water quality and crop production capacity. The 2000 Comprehensive Plan specifically identified the recharge area for the Thomas and Harter water wells.

Unfortunately, regional comprehensive plans are not binding on the participating municipalities or landowners. Enforcement of regional priorities can *only* be achieved through adoption and enforcement of municipal zoning law.

In 2001, citizens approached the Centre Region Recreational Authority, which approached the COG, about growing demand for fields for organized sports such as soccer and lacrosse. Meanwhile, the Ferguson Township Board of Supervisors was revising the township’s official map, and slipped into the new map a sketch of an

extension of Blue Course Drive across the watershed and Slab Cabin Run, to Shingletown Road/Route 45.

Centre Region Planning Agency Senior Planner Sebastian DeGregorio caught the attempt and drafted a letter to Ferguson Township, emphasizing the land use and environmental concerns, including the threat to the downstream SCBWA water wells and the destruction of productive farmland.

In March 2003, several local entities signed a Sourcewater Protection agreement, including SCBWA, UAJA and the College Township Water Authority, but not Penn State. The agreement, which was driven by the progress of the beneficial reuse program toward delivering treated, tested UAJA wastewater to upstream customers and environmental restoration projects, called for coordinated monitoring of groundwater and treated wastewater for non-regulated contaminants, to enable quality comparisons, above and beyond the standard Safe Drinking Water Act testing protocols. The agreement also stated that the signatories would work together to protect all source waters from *any* source of potential contamination, such as agriculture, urban development, roadways and chemical spills, not just beneficial reuse projects.

In October 2003, the DEP published a Sourcewater Assessment Study. The study identified the top two risks to the Thomas and Harter wells as “transportation corridors,” and “residential/light commercial development.”

In November 2003, corporate Penn State approached the Ferguson Township Board of Supervisors requesting upzoning of the land near Whitehall Road and Blue Course Drive from low-density Rural Agricultural (RA) to high-density multifamily residential (R4).

From January to September 2004, regional planners and adjacent municipalities, including State College Borough Council, reviewed Penn State’s rezoning request and universally recommended Ferguson Township deny the request to avoid extension of Blue Course Drive into the fragile Slab Cabin Run watershed and agricultural security area.

A representative example was a March 29, 2004 Centre Region Planning Agency staff report:

“Topography – The 26.3 acre site is undeveloped, rolling and gently sloping farm fields that have an average slope of between 0-3% in the front portion of the site, directly adjacent to Whitehall Road. The site drops much more sharply to approximately 7% as one moves away from the road, about 500-600 feet and closer to the fairly large drainage swale, which moves across the site from northwest to southeast. This swale acts as an active natural stormwater drainage facility in even the most modest storm events. This natural drainage moves across all adjacent farm fields and at a distance of less than 1 mile, eventually reaches the area of the [SCBWA] Harter-Thomas Well fields where a series of active water production wells are located. These wells pump approximately 4 million gallons of drinking water a day to 35,000 – 40,000 people...”

On September 7, 2004, by a 3-2 vote, Ferguson Township supervisors approved the rezoning, and brought the Penn State parcels inside the Regional Growth Boundary/Sewer Service Area without amending the regional comprehensive plan or the Act 537 plan. The upzoning increased the value of Penn State’s land by about \$13 million, as reflected in the 2012 purchase price offered by Toll Brothers.

Probably somewhat in response to the 2004 rezoning – coupled with a similar maneuver in Patton Township for the property off Grays Woods, which is now Geisinger Medical Center – in 2006, the COG General Forum adopted “Developments of Regional Impact” approval process. The DRI implementation agreement laid out procedures for COG General Forum to review developer requests for parcels to be brought into the Regional Growth Boundary/Sewer Service Area.

Under the 2006 agreement, approval of rezoning and RGB/SSA incorporation for projects outside the RGB/SSA required unanimous consent of all municipal boards. In contrast, zoning to increase the intensity of use for development projects inside the RGB/SSA could be done unilaterally by municipal boards.

Also in 2006, COG General Forum adopted an updated Act 537 plan and the regional parks articles of agreement that paved the way for the 100-acre Whitehall Road Regional Park project in the Slab Cabin watershed.

Meanwhile, ClearWater Conservancy and the State College Borough Water Authority negotiated purchase of 423 acres in nearby Musser Gap, explicitly to conserve the land for sourcewater protection.

2007 brought two SCBWA reports. In January, the water authority published a Sourcewater Protection Report, and in July 2007, the authority published a Dye Trace Study presenting the data collected in 2005 and 2006 to support the Musser Gap conservation project.

Also in 2007, Sweetland Engineering prepared a subdivision plan for several parcels of Penn State land. The subdivision plan, as reported previously, linked private funding for an access road, water and sewer service, and traffic improvements for the adjacent public park, to successful completion of the student housing complex. The subdivision plan set the stage for corporate Penn State to engage in a series of strategic land sales.

In 2008, the Centre Region Parks and Recreation agency conducted a survey. 75% of more than 1,000 respondents said they were satisfied with available park resources and did not want public money spent to add to the park portfolio. The parks authority board ignored the findings and proceeded with planning for two new regional parks at Oak Hall and Whitehall Road.

Also in 2008, Penn State sold 75 acres of land to Ferguson Township and COG for the proposed Whitehall Road park, and 60 acres of land to SCBWA for water conservation, upslope of the proposed high-density housing site.

In 2008 and 2009, signatories to the 2003 Sourcewater Protection Agreement conducted comparative testing of groundwater and treated beneficial reuse water for non-regulated pharmaceutical and endocrine-disrupting

chemicals. The results showed similar contaminant profiles for both groundwater and treated reuse water.

By the end of the 2000s, private developers had built The Pointe, Palmerton, Bryce Jordan Tower, Campus Tower and Centre Court. The regional population stood at about 92,000.

2010s

In February 2011, the COG General Forum used the 2006 DRI implementation agreement to approve a request made by Centre Region Planning Agency on behalf of the parks authority board to add the 75-acres proposed for the Whitehall Road Regional Park to the RGB/SSA. In April 2011, the COG General Forum voted to approve municipal taxpayer guarantees for a \$7.58 million regional park construction loan from Fulton Bank. In May 2011, Penn State sweetened the pot, selling Ferguson Township and COG another 25 acres for the Whitehall Road park, bringing the total to 100 acres.

Also in 2011, the PA Fish and Boat Commission published a report aptly entitled “The Spring Creek Fishery: A Watershed Under Siege.”

In May 2012, the Penn State trustees approved the sale of two Whitehall Road parcels, totaling just over 40 acres, to Toll Brothers subsidiary Springton Pointe LP, for \$13.5 million.

In August 2012, the COG General Forum denied a Calvary Baptist request for RGB/SSA expansion in Harris Township for construction of Harvest Fields. Ferguson Township supervisors cast the determinative “No” vote, submitting an utterly hypocritical written objection to expansion of RGB/SSA for the Harvest Fields project, based on the need to strictly enforce the growth boundary to protect rural open-space and farmland. Calvary Baptist subsequently sued COG, and the matter was settled by the court, allowing Harvest Fields to proceed.

In November 2012 – motivated by a desire to protect their local ecosystems, including water recharge areas and productive farmland – Ferguson voters adopted a charter-amendment Community Bill of Rights, the first of which is “the right to pure water.”

In September 2013, the Penn State board of trustees threw in another 5.5 acres for the Toll Brothers land sale. These 5.5 acres – slated for proposed stormwater detention basins – became subject to *de facto* rezoning from RA to R-4 through the subsequent 2015 Ferguson Township land development plan approval process, in violation of municipal zoning ordinances and the regional comprehensive plan.

Also in 2013, precipitated by the Calvary Baptist controversy, in December 2013 – the COG General Forum adopted an updated RGB/SSA Implementation Agreement, replacing the 2006 version, and giving municipalities flexibility to expand RGB and SSA boundaries without formal regional procedures for up to 50 housing units on up to 12 acres for a period of five years through December 2018.

In 2013 and 2014, the PA DEP published a Climate Impact Assessment report, warning of temperature and

precipitation changes, urbanization and impacts on agriculture and land use, and the PA Fish and Boat Commission classified all of Slab Cabin Run as a Class A Trout Stream.

Meanwhile, PennTerra engineers were preparing to submit the Toll Brothers land development plans to Ferguson Township for the student housing complex.

PennTerra hired CMT Laboratories to conduct infiltration analyses at the PSU/Toll Brother site. The tests were done in May 2013 and December 2014, using non-standard pit testing protocols because of the shallow depth to bedrock. The report authors concluded, “in terms of risk management, we do not believe there is an effective method for eliminating sinkholes in karst infiltration areas.”

In 2014, Scott Brown of Newell, Tereska & McKay (NTM) submitted a preliminary review of groundwater impacts of the PSU/Toll Brothers project to Ferguson Township, addressing

“soils or geologic limitations...including...the risk of sinkhole formation, particularly as related to potential impacts to the State College Borough Water Authority well fields which are down-gradient from the site...and explicitly...any limitations caused by the observed shallow depth to bedrock and high bedrock infiltration rates in the vicinity of proposed infiltration facilities and sedimentation control basins.”

And Aqualith Technologies LLC conducted project reviews of the proposed rezoning of Everhart Farm (near the PSU/Toll Brothers site, but across the border in College Township) and the PSU/Toll Brothers site. Author David Yoxtheimer, consulting for SCBWA, wrote of the Toll Brothers site:

“the proposed project area is upgradient and within the delineated Zone 2 wellhead protection areas for both SCBWA wellfields. Accordingly this project is contained within the groundwater recharge area of these primary regional public water supplies and raises concern for potential ground water resource impacts. The surface drainage that would be routed via a large natural swale...from the proposed project area would be ultimately directed toward Slab Cabin Run and Wellfields 1 [Thomas] and 3 [Harter].

A fracture trace was previously mapped to be coincident with a portion of this swale, therefore the swale’s subsurface is interpreted to be a zone of increased bedrock fracturing and therefore a zone of enhanced groundwater recharge and flow. Previous dye trace testing demonstrated that Wellfields 1 and 3 receive at least some surface recharge from Slab Cabin Run, therefore any contaminants in surface runoff from the housing project could potentially have adverse impacts on regional drinking water quality.

Potential contaminants of concern in the surface runoff would consist of oil, grease, fuels, glycol, and de-icing

agents from the site parking lots, fertilizers used on site vegetation, as well as waterborne pathogens such as coliform bacteria.”

In 2015, citizens mobilized against the proposed student housing project, which received “tentative” township approval in March of that year, and “final” approval in November. The controversy propelled three new supervisors into office that year: Laura Dininni, Peter Buckland and Colleen Unroe, who ran on a platform of water and farmland protection.

Also in 2015, partly based on the Yoxtheimer recommendations, College Township Council decided not to rezone the nearby Everhart Farm for residential development, a public decision that helped lay the foundation for the current Slab Cabin Run Initiative by ClearWater Conservancy (more below).

In 2016, Mountainview Country Club asked UAJA to consider providing beneficial reuse water for golf course irrigation, and COG General Forum approved initiation of an Act 537 Plan Special Study to review the proposed project. Ferguson Township’s new supervisors approved new stormwater management rules and began working on a sourcewater protection overlay zoning ordinance.

A Centre County judge ruled against the township and Toll Brothers, and for the plaintiffs, in the citizens’ land use appeal, and Toll Brothers appealed to the Commonwealth Court.

In October 2016, ClearWater Conservancy launched the Slab Cabin Run Initiative conservation campaign to preserve 300 acres of Meyer and Everhart farmland near the Penn State-owned parcels, and the SCBWA continued working on plans to construct two new, \$20 million water treatment facilities: one at the Nixon and Kocher wellfields, and another at the Thomas and Harter wellfields.

Several phases of the beneficial reuse system were completed between 2000 and 2016, including reverse osmosis treatment plant to produce ultrapure water piped upstream as far as Kissinger Meadow for discharge into wetlands recharging Slab Cabin Run, but the final phase to the upper Slab Cabin watershed has been delayed because growth in sewage flow to UAJA had grown more slowly than projected. Recall, however, that even as the water volume declined, the volume of nutrient solids (nitrogen and phosphorous) piped to the treatment plant had been and continues to steadily grow, because every human-occupied bed of housing adds an irreducible amount of solid waste.

Since 2000, UAJA has spent about \$29.3 million in capital expenditures to construct the beneficial reuse system, and about \$5.2 million to operate it.

Expansion of the treatment facility capacity from 1 million to 2 million gallons per day, and extension of the pipelines to serve Tussey Mountain and Mountainview Country Club project are underway, with the former projected to cost \$4.7 million and the latter to cost \$2 million.

New housing constructed so far in 2010s includes: Villas at Happy Valley, Grove, View, Heights, Legacy and Retreat

complexes, with Metropolitan and Rise under construction and Toftrees expansion and Residences at College and Atherton in the planning stages.

And here we are in 2017.

A couple of months ago, UAJA director Cory Miller convened a meeting of the regional source water protection committee to begin discussions for an update to the 2003 agreement and restart joint water testing protocols, against a backdrop of regional beneficial reuse expansion discussions as they converge sprawl, overpopulation, stress on the nutrient management capacity of UAJA under Chesapeake Bay regulations and stress on stormwater runoff systems under MS4 regulations.

Last month, on May 17, the Commonwealth Court overturned the Centre County Court of Common Pleas decision, based solely on the timeliness of the land use appeal, thus clearing the way for PSU to complete the sale to Toll Brothers, knocking over the first domino in the row.

The ruling compelled Nittany Valley Water Coalition to launch a citizen campaign and site occupation to persuade corporate Penn State to halt the sale to Toll Brothers and gracefully negotiate a face-saving land swap so that Toll Brothers can build luxury student housing on other Penn State-owned land not on top of the drinking water recharge area, and so that Penn State can forestall further bad publicity as abusers of their host community.

CRITICAL ANALYSIS

Taken together, the scientific data support the Nittany Valley Water Coalition stance: that the Thomas-Harter recharge area is fragile, valuable and worth fighting to protect from the dangers of initial and cumulative land development.

Taken together, the political history supports the *Bailiwick News* stance: that corporate Penn State increases enrollment to keep it higher than a growing local housing supply, so private investors and landlords can reap large profits and put competitive pressure on students (and their loan lenders) to pay higher rents. Corporate Penn State also buys agricultural land at low cost, maintains property tax exemptions while they knock over municipal zoning laws and regional planning limitations, and sells high to reap institutional profits, further facilitating private profits for investors who buy into the development corporations to whom the Penn State land is sold.

Win or lose the Battle of Slab Cabin Run, corporate Penn State will continue trying to internalize profits and externalize costs, because that’s what it’s structurally designed to do.

The state legislature will continue to stand idly by, and occasionally adopt new rules empowering developers at citizen expense, because that’s what it’s structurally designed to do.

Well-placed COG insiders will ensure that controversial issues are buried in committees for many months, use the committees to narrow the issues permissible for debate, and then present the original decisions made through private side deals to the General Forum for rubber-stamp

ratification. Local governments will continue to buckle to extreme pressure to roll over and play dead.

Nonetheless.

In the years ahead, our community will be choosing from among three visions for the relationships between ecosystems, political systems, citizens and developers.

The first is “business-as-usual,” in which developers can build anywhere anytime they can get municipal board endorsement, ecological and political carrying capacity be damned.

The second is the “smart growth” vision espoused by many, perhaps most of the concerned citizens involved to date, to put new high-rise student housing in the State College Borough core and thereby prevent further sprawl into rural and ecologically-essential areas.

The third is the “steady-state” vision, stabilizing Penn State enrollment and regional population within a small fluctuating range to stabilize density in the core and at the periphery, and actively cultivating rural farms and forests as ecological protection zones to increase the odds of long-term access to clean water and locally produced food.

In the meantime, we’re building a strong network of informed, engaged citizens capable and willing to fight for the right to be part of something more meaningful and soul-sustaining than a multi-municipal corporate Penn State dormitory.

Selected Citations:

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- 2011 Whitehall Road Investment Prospectus
- 2013 Infiltration Analysis at PSU/Toll Brothers site, CMT Laboratories LLC
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- 2014 Aqualith Technologies PSU/Toll Brothers project review, by David Yoxtheimer
- Author’s Interview Notes (Nov. 14, 2016), Walter Ebaugh, Founder of Nittany Geosciences Inc., UAJA Board Member
- Author’s Interview Notes and Email Correspondence, Cory Miller, UAJA Executive Director
- Centre County Historical Society
- Centre Region Planning Agency Data Center

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