
Providing wild and forested
lands and clean waterways
for our community, forever.
LANCASTER
CONSERVANCY
Photo: Gregory Smolin

Susquehanna Riverlands Conservation Landscape

Photo: Dustin Underkoffler

DCNR & the Conservancy

Working together in the SRCL to undertake **INTEGRATED PLANNING** for public landowners including utilities, state parks, land trusts, trail groups, state agencies, Fish and Boat, PA Game Commission, and others

LANCASTER CONSERVANCY

pennsylvania DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

Fast Facts

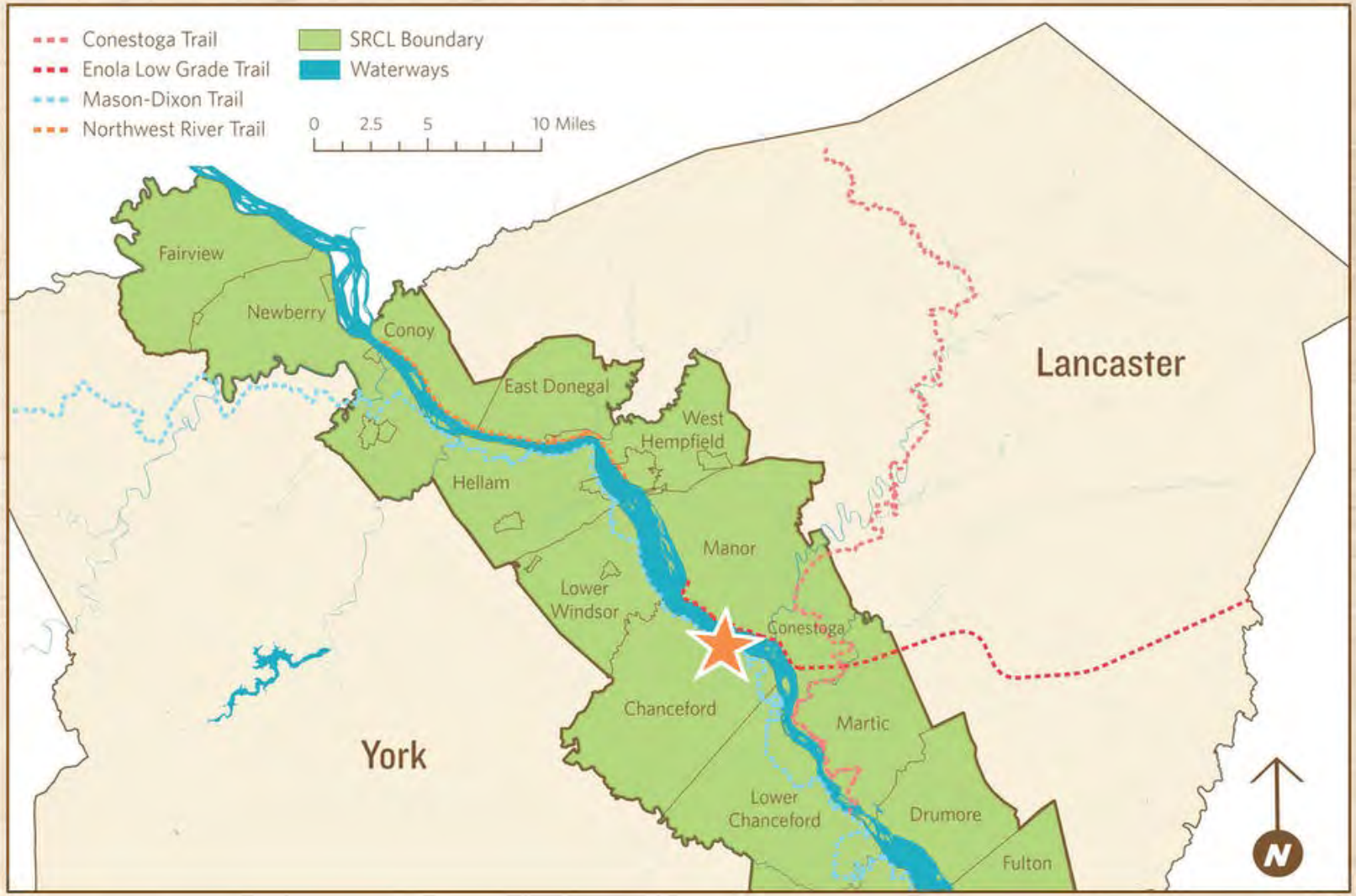
- **Formed in 2010**
- The Conservancy owned **1,500 acres** in the Riverlands **in 2010**
- Today, the Conservancy has helped acquire and protect over **7,300 acres** in the Riverlands!
- Protected Land Value: **$37.2 Million**
- DCNR Funds Invested: **$31+ Million**

Conservancy Protected Lands in the Susquehanna Riverlands

Fast Facts

- Vast amount of Permanently Protected, Publicly Accessible Land in the SRCL
- Substantially larger than the surface area of the Cities of York, Lancaster and Harrisburg, combined (only about 24.5 square miles).
- SRCL is central to cleaning water entering the Chesapeake Bay, shaping communities, mitigating environmental impacts, and opening land for public recreation, fishing and hunting.

Susquehanna Riverlands Conservation Landscape



Outdoor Recreation Economy

- Pennsylvania has the 8th largest Outdoor Recreation Economy in the US
- 1.8% of PA's Economy
- $17 billion value added to PA's GDP
- SRCL plays a significant role, which is expanding

2022—Pennsylvania

Value added [gross domestic product]		Employment		Compensation	
ORSA total	Share of state	ORSA total	Share of state	ORSA total	Share of state
$16.9 billion	1.8%	164,344 jobs	2.7%	$7.7 billion	1.5%

Value Added by Select ORSA Activity
[Thousands of dollars]

Activity	2020	2021	2022	State rank
RVing	567,292	808,463	863,745	11
Motorcycling / ATVing	530,357	546,662	583,164	4
Boating / fishing	561,817	566,189	575,541	19
Hunting / shooting / trapping	318,038	341,941	342,859	9
Equestrian	186,955	193,116	207,826	6
Snow activities	129,572	158,578	207,804	9
Climbing / hiking / tent camping	171,067	154,880	178,953	8
Bicycling	127,867	107,177	114,120	6
Recreational flying	25,150	34,181	86,406	9

Cuffs Run Pumped Storage Project

Photo: Avery Van Etten

Working Together

Organizations focused on the protection of the lower Susquehanna River and its surrounding landscape have united to build strong community support for protecting this landscape from destruction.

FARM & NATURAL LANDS TRUST
OF YORK COUNTY

SAVE THE BAY • SAVE THE BAY • SAVE THE BAY • SAVE THE BAY ®
CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

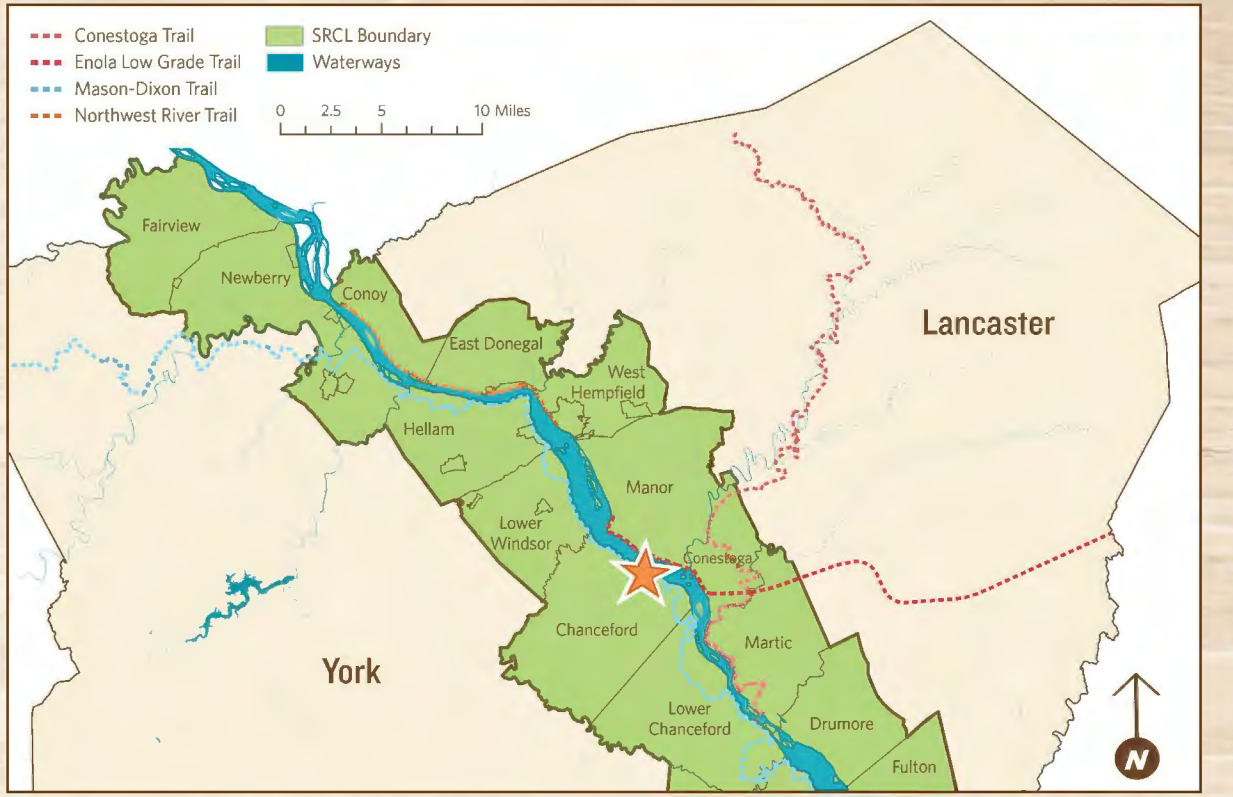
LANCASTER
CONSERVANCY

SUSQUEHANNA
NATIONAL HERITAGE AREA

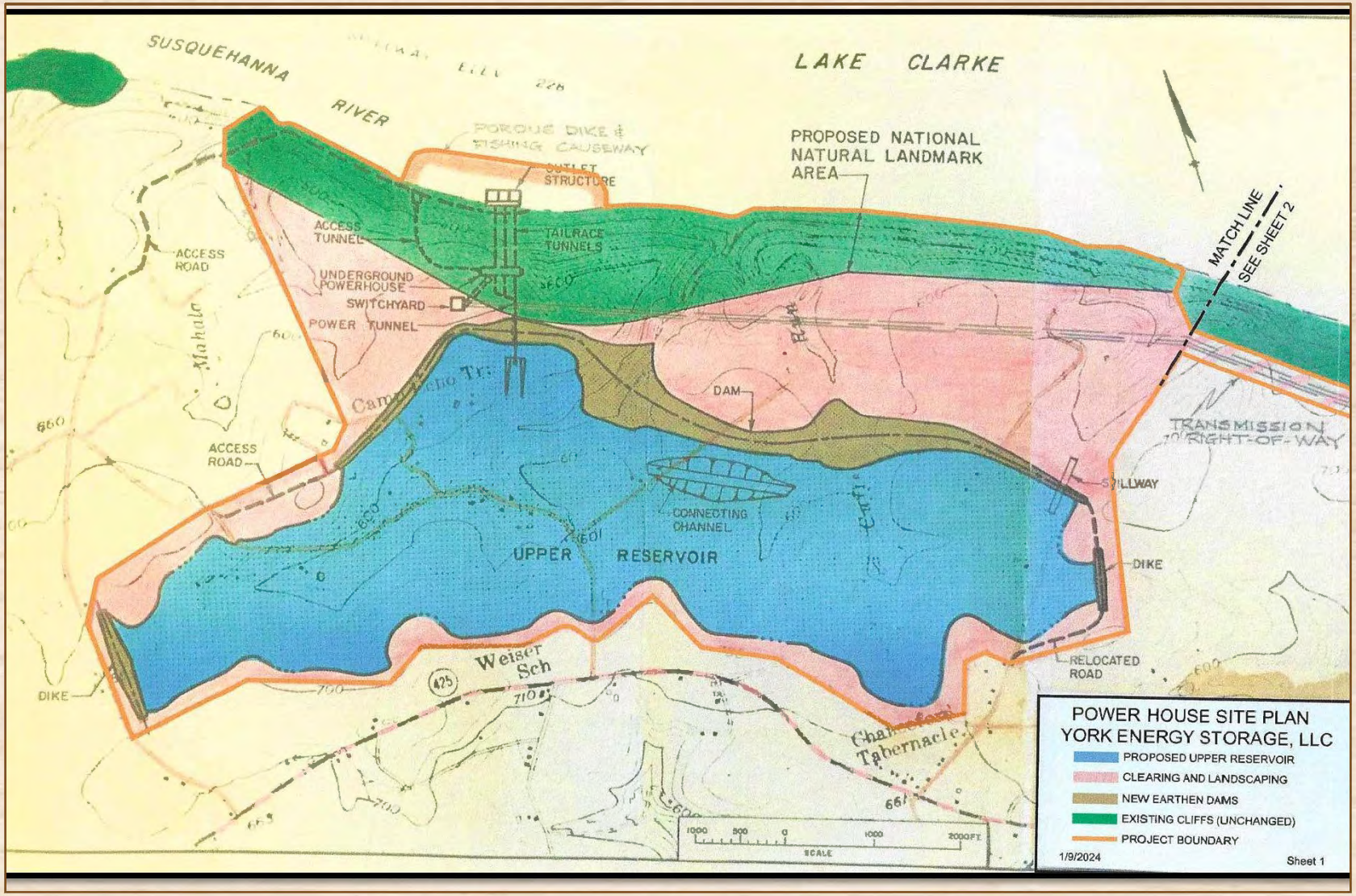
Lower Susquehanna
RIVERKEEPER®
ASSOCIATION

Proposed Project Location

- Chanceford Township, York County
- In the heart of the Susquehanna Riverlands Conservation Landscape (SRCL)
- 2.5 miles upriver from Safe Harbor Dam
- 1.8 miles downriver from Frey Farm Landfill and Turkey Hill

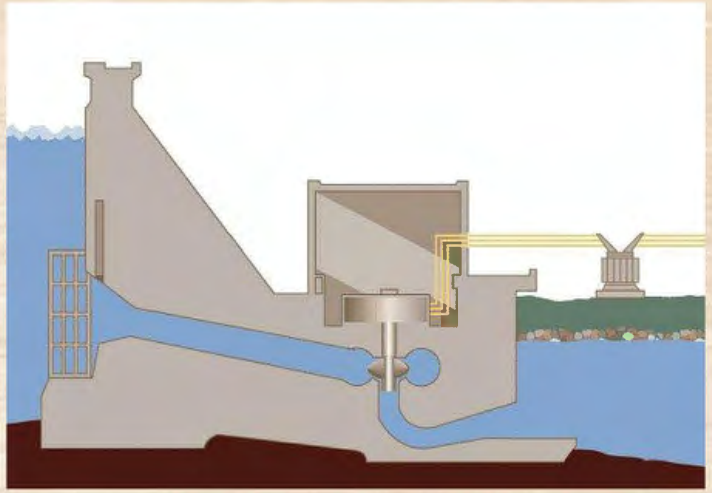


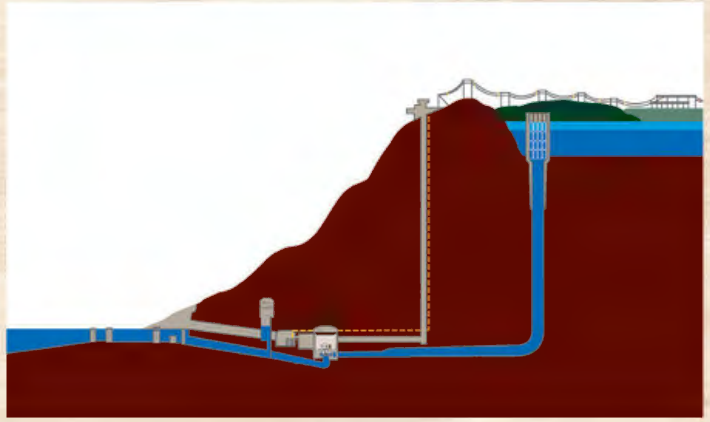
Proposed Project



Open-Loop Pumped Storage

- 1950s Era Technology; most U.S. units built between 1960 and 1990. Different than conventional hydro.
- 2013 – 41 Plants in U.S. 2023 – 40 Plants in U.S.
- Consists of two reservoirs, an upper and a lower; a reversible turbine/generator assembly that can act as a water pump or a turbine (pump-turbine); a significant intake structure and barrier around it; a switchyard; and a transmission line to get the power to the market.
- At times of low electric prices, electricity is used by the generator to reverse the direction of the pump-turbine and pump water from the lower reservoir through the unit and up into the upper reservoir. The water is stored in the upper reservoir until the price for electricity is higher.
- The water is then released from the upper reservoir back through the unit and the pump-turbine into the lower reservoir, the pump-turbine generates electricity from the flow of the water, and the power enters the market via the transmission line.





Photos: FERC Staff

Effects of Open-Loop PSH

Impacts on Surface Water

- Increase shoreline erosion and sedimentation & adverse effects on water quality
- Evaporative losses from reservoirs may increase concentrations of dissolved solids, nutrients & heavy metals
- Pumping & generation operations affect water temperature and dissolved oxygen, increase the intensity and change the pattern of water circulation in the two reservoirs
- Level fluctuations weaken the ice cover around edges of reservoirs
- Light penetration in reservoirs decreases due to erosion, fluctuating levels and resuspension of bottom sediments

Impacts on Groundwater

- Effects on construction and reservoir seepage on groundwater quality
- Seepage from reservoirs may cause movement of reservoir water into surrounding groundwater and other nearby surface water bodies, and may also raise surrounding groundwater levels

Effects of Open-Loop PSH

Impacts on Aquatic Ecology

- Altered biological production due to short-term reductions and short-term expansions in littoral zone during operations
- Effects on reservoir temperature stratification
- Entrainment of fish and other organisms in intake and turbine facilities
- Impingement of fish and other organisms on trash racks
- Transfer of fish and other organisms (including exotic species) from one reservoir to another
- Migration delays or losses in river connectivity due to changes in hydraulic conditions and entrainment

Impacts on Geology & Soils

- Effects on construction and reservoir seepage on groundwater quality
- Seepage from reservoirs may cause movement of reservoir water into surrounding groundwater and other nearby surface water bodies, and may also raise surrounding groundwater levels

Effects of Open-Loop PSH

Impacts on Terrestrial Ecology

- Constructing and operating project reservoirs and related facilities clears vast areas of terrestrial habitat and may affect sensitive animal and plant species
- Impacts to terrestrial ecology often cannot be avoided due to siting contraints (i.e., limited by topographical conditions and proximity to water source

Impacts on Land Use

- Constructing project reservoirs and other related facilities clears vast areas of land, affecting existing and planned land uses
- Impacts to important land uses often cannot be avoided due to siting constraints (i.e., limited by topographical conditions and proximity to water source)

Effects of Open-Loop PSH

Impacts on Visual Resources

- Initial construction and continued presence of above-ground project reservoirs and other facilities (including lengthy transmission lines) may affect viewsheds from sensitive areas such as parks, recreation areas, wilderness areas, etc.
- Impacts to sensitive viewsheds often cannot be avoided due to siting constraints (i.e., limited by topographical conditions and proximity to water source)

Impacts on Cultural Resources

- Constructing and operating project reservoirs and other facilities clears vast areas of land and may affect known and unknown cultural resources
- Impacts to cultural resources often cannot be avoided due to siting constraints (i.e., limited by topographical conditions and proximity to water source)

Additional Specific Impacts

- Sever the Mason Dixon Trail, causing relocation
- Destroy Cuffs Run, a warm water fishes stream supporting natural trout reproduction
- Impact the views from numerous trails and nature preserves
- Destroy a portion of Apollo Park, a significant public park and recreation area at the heart of the SNHA
- Eliminate a minimum of 580 acres of interior forest habitat, flood preserved farms, occupy over 1000 acres of land
- Destroy hundreds of acres of “Prime” and “Statewide Important” soils
- Likely destroy intact Cultural Resources
- Impact several endangered, threatened or rare species

Photo: Avery Van Etten

Long History of Failure

- Fifth Application for a Preliminary Permit for the ***Very Same Project*** since 1990 = 35 years of failure
- Mr. McMahon was behind all 5 applications
- In 1999, Mr. McMahon stated this project “won’t go away”, and he still seems unwilling to let it rest
- Of the 5 previous applications, Mr. McMahon received 2 Preliminary Permits, undertook extensive studies, yet both failed to produce a license application. This is his 3rd preliminary permit received for this project
- FERC should not allow this abuse of the Preliminary Permit process and has so far refused to consider the impacts on area residents of these repetitive permits over 35 years

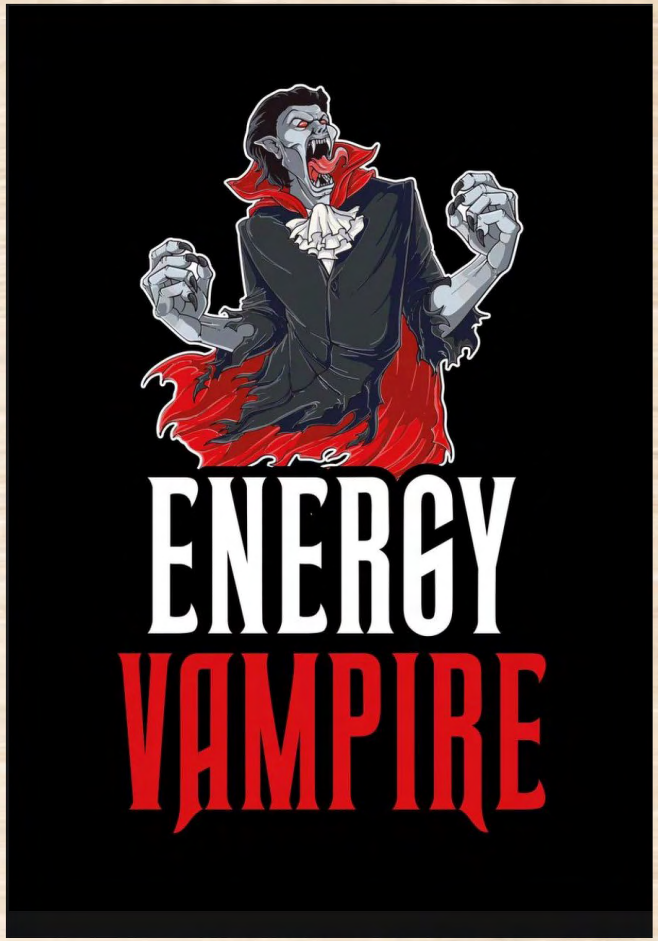
Photo: Sean Roberts

Project Is Not Needed

- You heard York Energy claim that sufficient nuclear, coal, gas, solar and wind generation will not be built and that this unit is the only real solution – This is false!
- PJM has 181,353 MW of existing, installed generation capacity
- PJM RTEP = 125,129.8 MW of all types of proposed new generation in the queue – WITHOUT York Energy
- PJM RTEP = Of that, 37,861.3 MW is Long Duration Energy Storage proposed generation – WITHOUT York Energy
- PJM believes it can meet the challenge of having sufficient additional generation constructed to meet the needs in the region
- PJM apparently believes it can do this without York Energy's 858 MW of part-time generation that uses 120-125% of the energy it actually generates just to pump water up a hill

Project is Not Economic

- This unit is not about lofty goals and objectives. This unit is about price arbitrage, plain and simple
- Arbitrage involves buying electricity when prices are relatively low (at night) and selling that electricity when prices are high (during the day)
- As an intermittent power source, this unit is “a parasite on the grid”
- But this unit also uses 20%-25% more energy each and every pump cycle than it generates each and every generation cycle
- Thus, this unit moves from a mere “parasite on the grid” to a full-blown “Energy Vampire”, constantly sucking out more power than it generates
- Costs at least 2.5 billion, probably closer to $3.0 billion, for 858 mW of pumped storage hydro capacity that doesn’t even run 24/7
- FOR THE SAME AMOUNT OF MONEY, you could build 2 to 3 gas fired combined cycle generation units with a capacity of 1,700 mW - 2,580 mW of generation, that could run 24/7 and be available to meet demand at all times



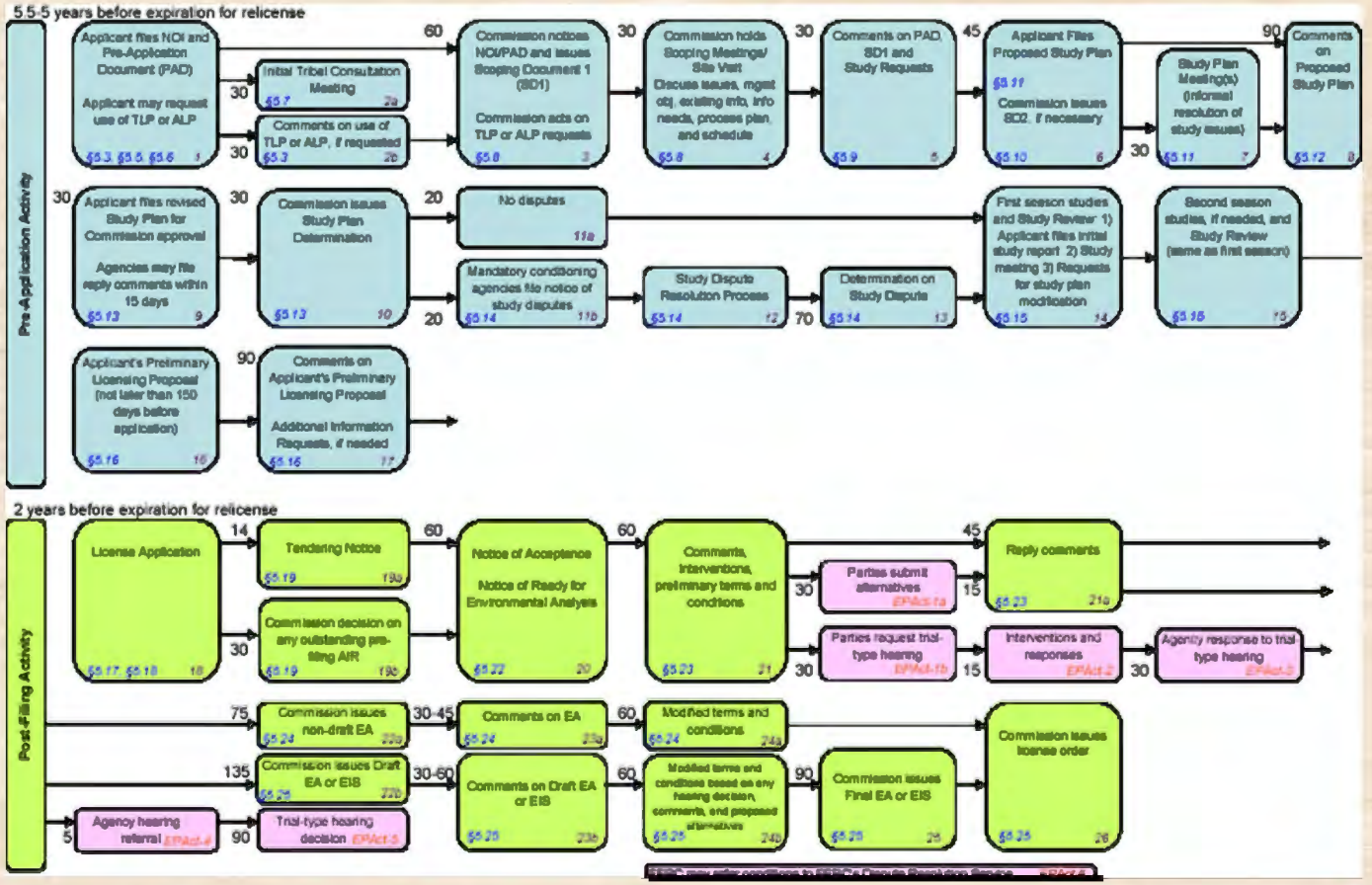
Bad For Regional Development

- Changes in region since 1990 make it no longer suited for or compatible with York Energy's proposed facility
- SRCL established; Large swaths of land preserved for public
- In 2019, Congress passed a law designating this area the Nation's 55th National Heritage Area – the Susquehanna National Heritage Area
- Pennsylvania's new Susquehanna Riverlands State Park nearby
- The Lower Susquehanna River is now an official part of the Captain John Smith Chesapeake National Historic Trail (a water trail)
- Safe Harbor Trestle Bridge (on the NRHP) is restored and connects sections of the Enola Low Grade Trail
- More than $100 million has been spent of conservation and recreation in the SRCL since 1990
- SRCL has transformed into a landscape-focused connected corridor for recreation and protected habitat

Failure to Understand Process

- There is no lawsuit – we appealed a FERC order granting the permit. Our brief is being filed in the Third Circuit this month. We are represented by Clement & Murphy (Paul Clement's [Fmr. Solicitor General] appellate law firm)
- There will be a thorough EIS conducted by FERC under the license application process
- SRBC and DEP will both be involved – there are both evaporative and seepage losses of water and significant water quality issues
- If Mr. McMahon decides to proceed to a license application towards the conclusion of his 4-year permit, there is a 1-to-2-year period to prepare a Notice of Intent and Pre-Application Document followed by a 5-to-7-year Integrated Licensing Process (ILP)
- Assuming no appeals (and we expect appeals causing additional delays), this unit would not begin construction until between 2035 and 2038
- York Energy apparently does not completely understand this process
- This is not surprising, as we told FERC that York Energy lacked the necessary general fitness to hold and prosecute a preliminary permit

FERC Integrated Licensing Process



Widespread Opposition

- Land owners
- Neighbors
- Holtwood & Safe Harbor
  - 48% of the Usable Water withdrawn & re-injected
- Recreation groups
- Environmental groups
- Agriculture Boards
- Elected officials
- DCNR Letter of Concern

Photo: Sean Roberts

Questions?
We Will Actually Try To Answer Them!

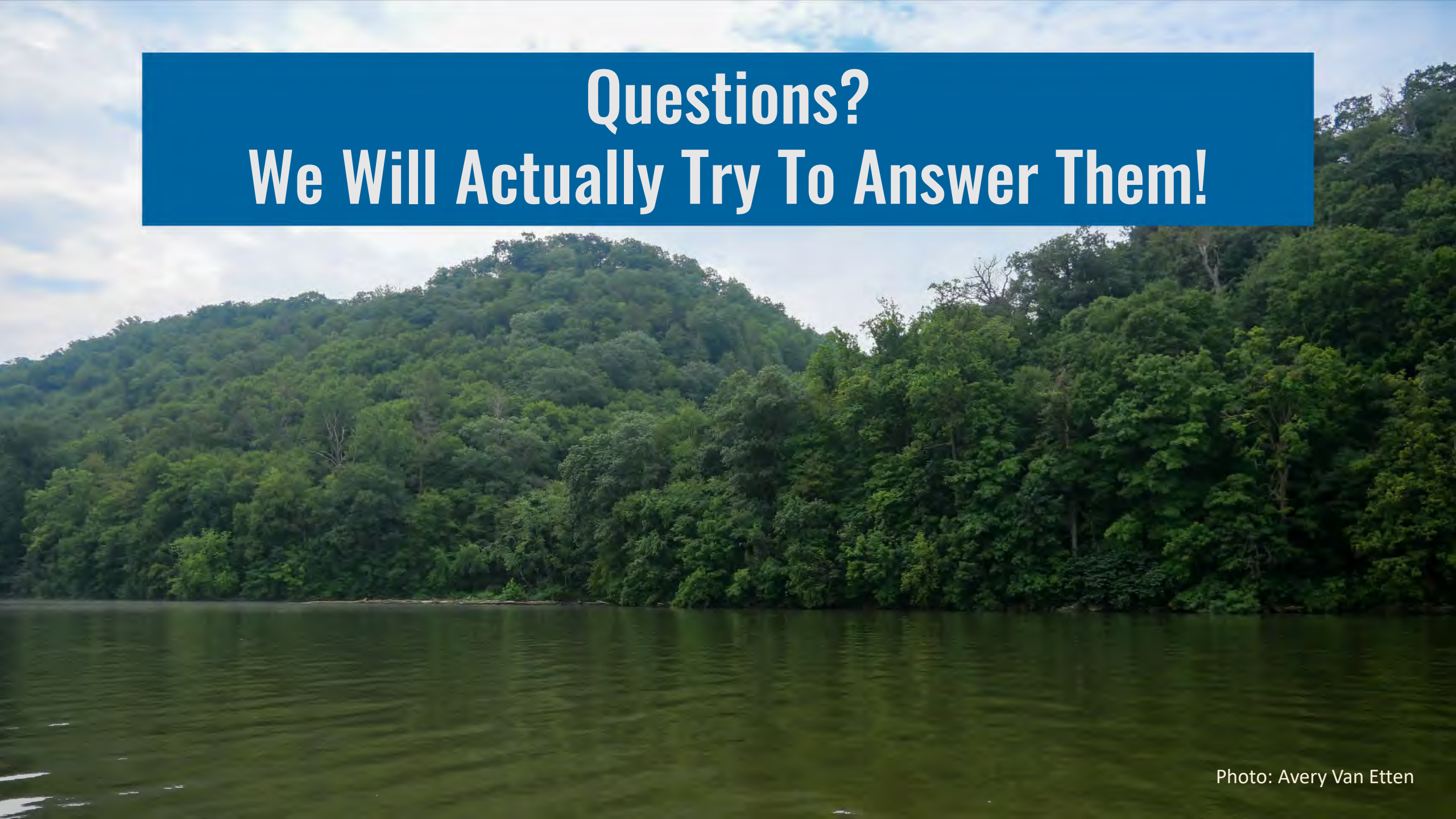


Photo: Avery Van Etten

THANK YOU!

LANCASTER
CONSERVANCY

Lancaster Conservancy's **10,000+** acres of natural land protected forever contain…

38 MILES
OF STREAM

45+ MILES
OF TRAILS

49 NATURE
PRESERVES

Photos: Nick Gould & Christian Przybylek

Photo: Michelle Johnsen

RESTORE

Photo: Nick Gould

Photo: Greg Smolin