

VCHR Concerns about Energix in Virginia

An Appeal
to Amherst Planning Commissioners and Board of Supervisors
to Weigh all Risks posed to Citizens and the Environment
by Piney River Solar, LLC
proposed for Amherst County

Virginia Coalition for Human Rights (VCHR)

vacoalition4hr@gmail.com

March 7, 2023

Who, What, Where, Why, How?

- Who: Lessor/Landowner: Wesley Wright Properties, LLC
Lessee: Piney River Solar, LLC
Parent Company: Energix Renewable Energies
- What: Piney River Solar, LLC
50 MW Solar Power Plant on 389 acres
- Where: Patrick Henry Highway and Rose Mill Road
- Why: Electricity Generation
- How: 150,000 solar panels made with Cadmium Telluride

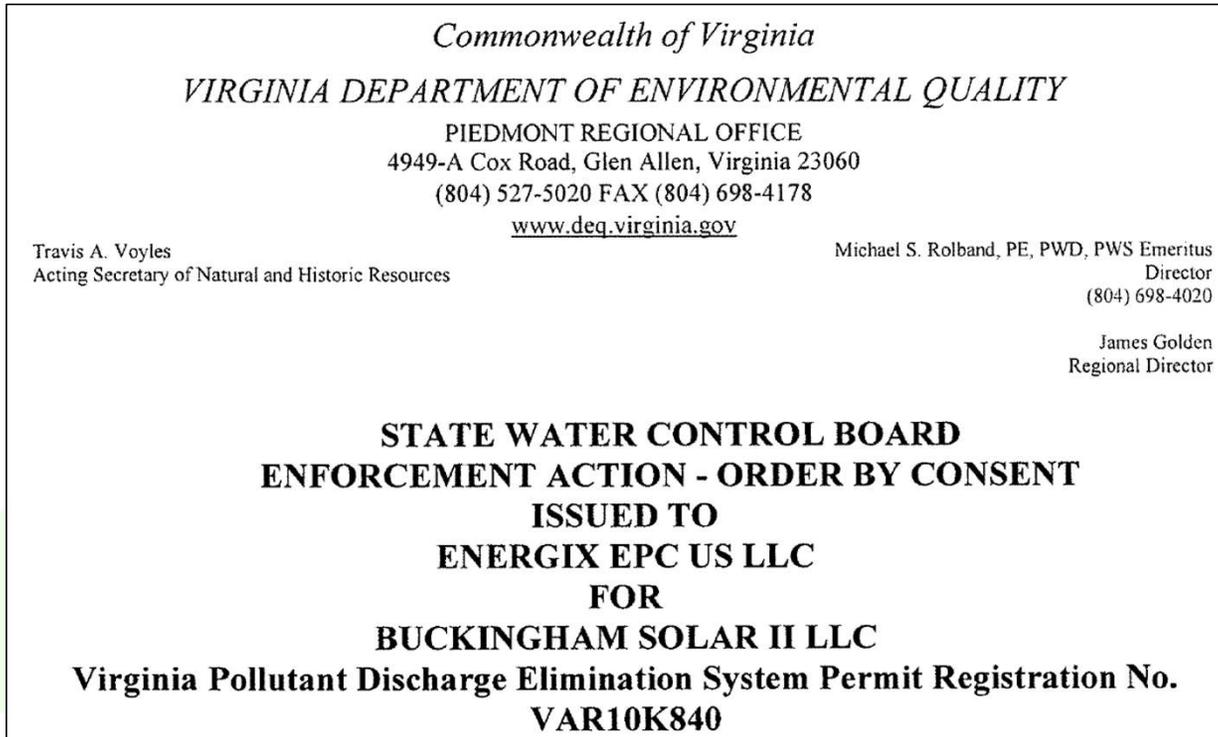
Virginia Counties Reject Energix 2021-2022

- Pulaski County: Permit denied to Energix Helios Solar LLC, October 2022
- Franklin County: Energix withdrawal of Westlake Solar LLC, September 2022
- New Kent County: Energix withdrawal of New Kent Solar LLC, November 2022
- Caroline County: Permit denied to Energix Racehorse Solar, September 2022
- Dinwiddie County: Permit denied to Energix Lily Pond Solar, October 2021

Energix in Virginia Concerns

Concerns over DEQ Environmental Fines

DEQ Environmental Fines/Buckingham Solar II



In Buckingham County, in June 2022, the State Water Control Board issued an Enforcement Action (above) and fined Energix \$23,772.50 over environmental violations at its Buckingham Solar II site.

DEQ Environmental Fines/Wytheville Solar

Commonwealth of Virginia
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
SOUTHWEST REGIONAL OFFICE
355-A Deadmore Street, Abingdon, Virginia 24210
(276) 676-4800 FAX (804) 698-4178
www.deq.virginia.gov

Travis A. Voyles
Acting Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

Jeffrey Hurst
Regional Director

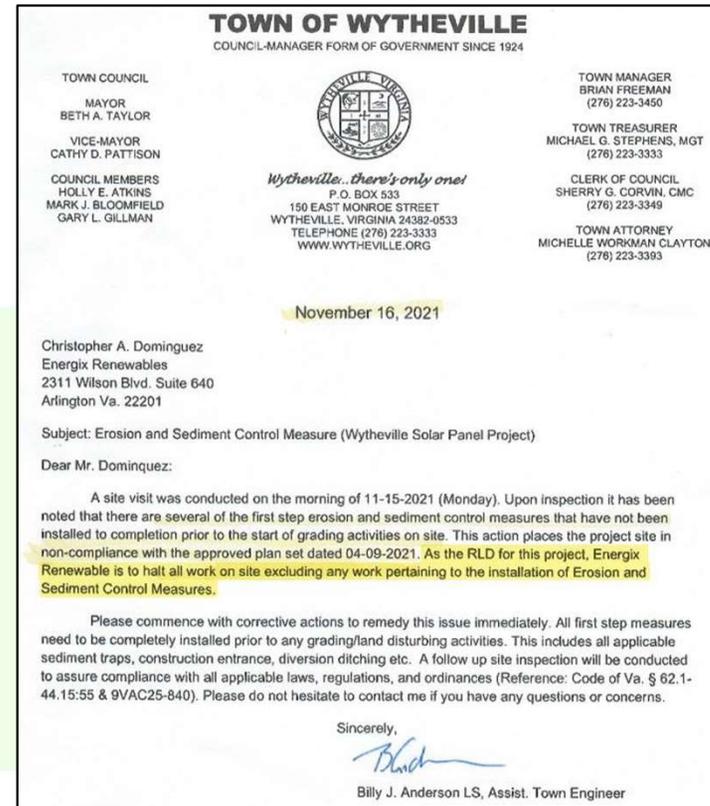
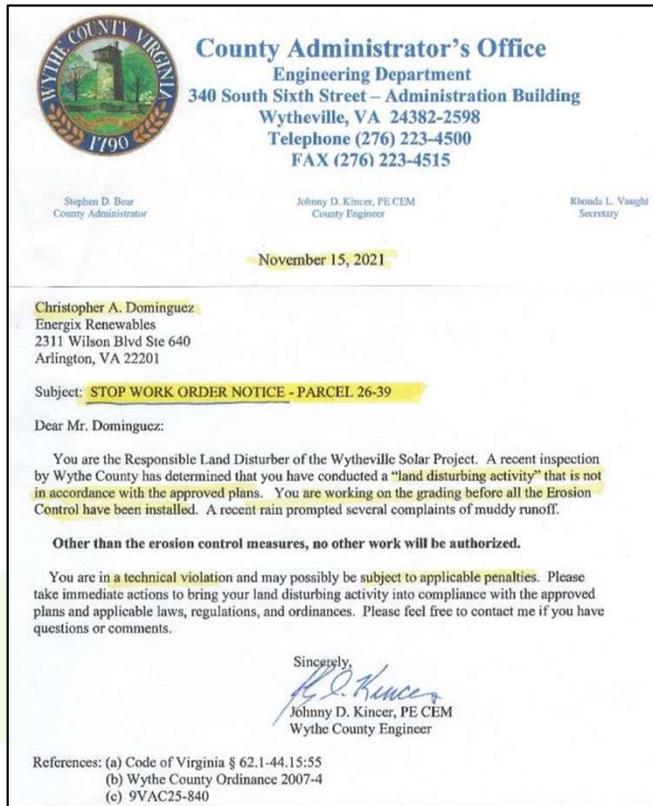
**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
ENERGIX EPC US LLC
FOR
CADEN ENERGIX WYTHEVILLE T-647
Virginia Pollutant Discharge Elimination System Permit or Registration No.
VAR100685**

In Wythe County, in June 2022, the Virginia Department of Environmental Quality issued an Enforcement Action (above) and fined Energix \$68,250 for environmental violations at Wytheville Solar site.

Energix in Virginia Concerns

Concerns over Erosion and Sediment Violations

Erosion & Sediment Violations: Caden Energix Wytheville Solar



Prior to June 2022, Wythe County and the Town of Wytheville issued Stop Work Orders against Energix in November 2021.

Erosion & Sediment Violations /Wytheville Solar



Upslope land was disturbed before temporary sediment Basin 7-3 was operational.

Source: Jan 11, 2022, CONSTRUCTION GENERAL PERMIT SITE INSPECTION REPORT LEVEL 2 – Jason McCroskey, DEQ Inspector



No stabilization measures applied to stockpile. No temporary silt fence.

Source: Jan 11, 2022, CONSTRUCTION GENERAL PERMIT SITE INSPECTION REPORT LEVEL 2 – Jason McCroskey, DEQ Inspector

Erosion & Sediment Violations /Wytheville Solar



Erosion on slope above Ditch 5-3 East resulted in accumulation of sediment, decreasing capacity of ditch. Ditch not cleaned out.



Silt fence behind Basin 3-3 not maintained in an effective operating condition.

Source: Jan 11, 2022, CONSTRUCTION GENERAL PERMIT SITE INSPECTION REPORT LEVEL 2 – Jason McCroskey, DEQ Inspector

Erosion & Sediment Violations/Wytheville Solar



Sinkhole in Basin 3-3. Basin not maintained to hold the required wet volume per the Erosion and Sediment Control Regulations and the approved plan.



Accumulation of water overtopped ditch, eroded embankment, and damaged silt fence. Ditch and pipe not installed or maintained to ensure positive drainage to Basin 5-3.

Source: Jan 11, 2022, CONSTRUCTION GENERAL PERMIT SITE INSPECTION REPORT LEVEL 2 – Jason McCroskey, DEQ Inspector

Other Concerns/Wytheville Solar



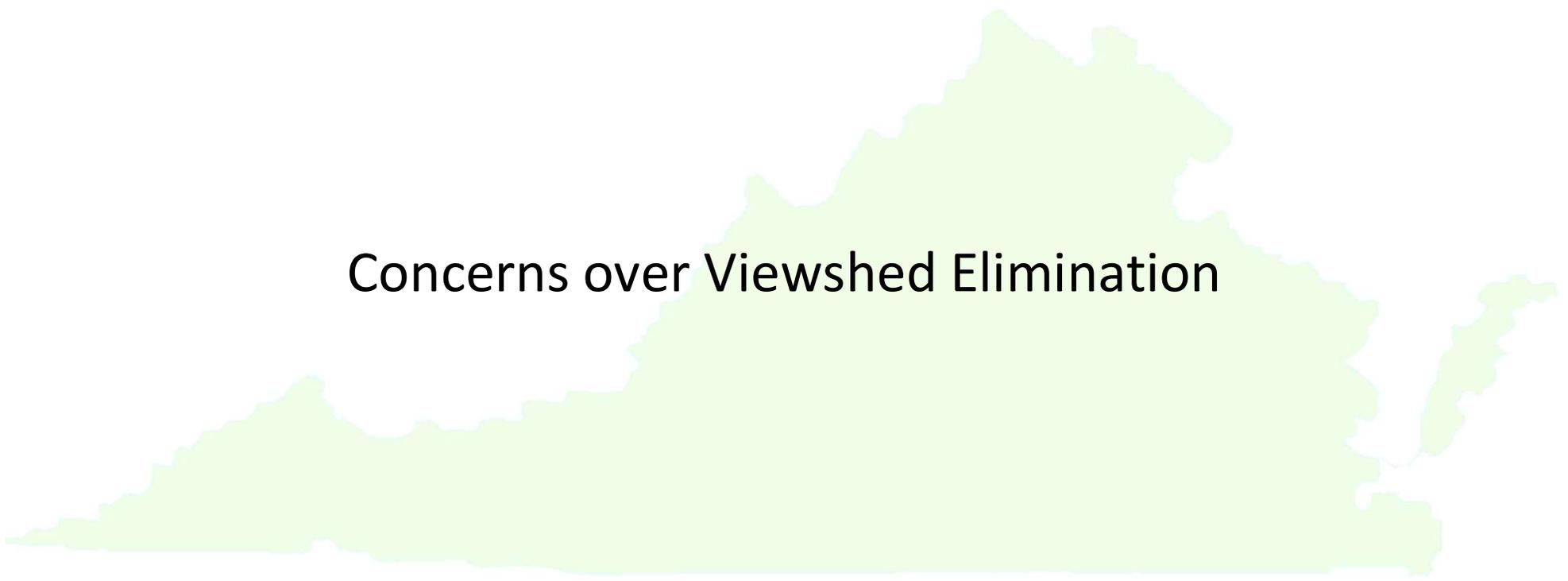
Upper left: Hydraulic fluid loss from hoses on drill above proposed Basin 7-2.

Upper right: Materials stored outside, uncovered, and with no means of secondary containment .

Source: Jan 11, 2022, CONSTRUCTION GENERAL PERMIT SITE INSPECTION REPORT LEVEL 2 – Jason McCroskey, DEQ Inspector

Energix in Virginia Concerns

Concerns over Viewshed Elimination



Viewshed Concerns/Energix Rives Road Solar



Development Plan for Rives Road Solar that indicates tree buffers (in green).

Viewshed Concerns/Energix Rives Road Solar



Backyard of **Sherry O'Dett, realtor**. "That natural barrier...is gone. I am upset that you created **a huge problem for my property value...** You have totally destroyed the neighborhood."

Energix violated county regulations and broke promises to residents to retain an existing 50-foot tree buffer. Instead, Energix eliminated the natural barrier.

Source: <https://www.progress-index.com/story/news/politics/government/2020/03/11/residents-not-sunny-over-solar-plant-plans/41698761/>

Viewshed Concerns/Energix Rives Road Solar



Energix plants “tree buffer” in response to concerns from county officials and community.

Source: Google Maps https://www.google.com/maps/@37.1781827,-77.3371703,3a,32.8y,151.15h,89.34t/data=!3m6!1e1!3m4!1sO32_1d5UXWikWhBTEyi7vg!2e0!7i16384!8i8192

Viewshed Concerns—Rives Road Solar



District 1 Supervisor Floyd M. Brown, Jr. expressed his desire to not repeat some of the mistakes made with the Rives Road project. “I heard those panels were supposed to go way off of the road.”

The Progress-Index, March 11, 2020

<https://www.progress-index.com/story/news/politics/government/2020/03/11/residents-not-sunny-over-solar-plant-plans/41698761/>



BoS Superintendent Donald Hunter: “It’s sad that Rives Road is the first one that we did, and that that one’s shown us what it’s shown us. It makes you very hesitant about the solar farms and what they have to offer.”

The Progress-Index, March 11, 2020

<https://www.progress-index.com/story/news/politics/government/2020/03/11/residents-not-sunny-over-solar-plant-plans/41698761/>

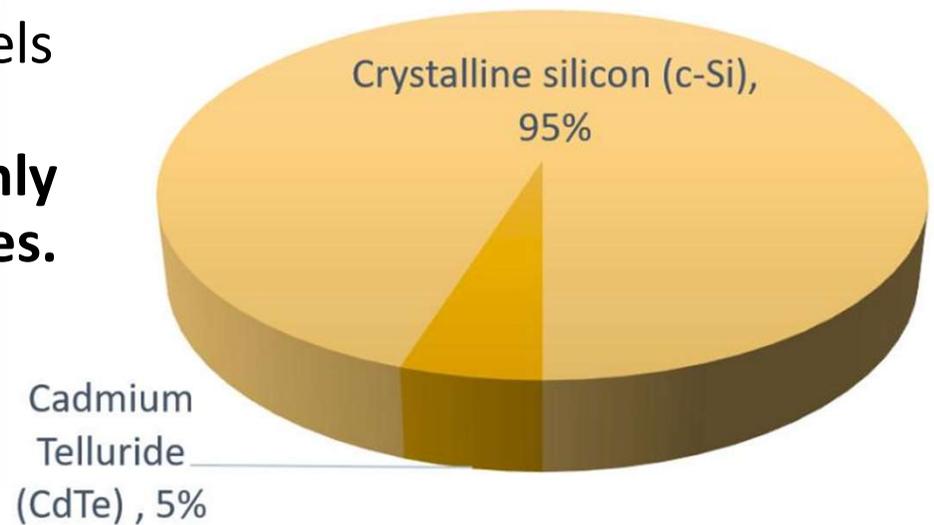
Energix in Virginia/Concerns

U.S. Government and Virginia County Concerns
over Cadmium Telluride (CdTe) Solar Panels

CdTe Solar Panel Concerns

Energix **exclusively** uses solar panels that consist of Cadmium Telluride (CdTe), a toxic heavy metal that **only 5 percent of the solar industry uses.**

2020 World Solar Panel Production Share



Scientific Research and CdTe Panels: Energix vs. U.S. Government

Energix Claims

- Energix cites **industry-funded studies** that tout the safety of solar panels that consist of Cadmium Telluride.

U.S. Government Findings



- **Environmental Protection Agency** lists CdTe in its **Toxic Substances Control Act**.
- **National Institutes of Health** states that “Leaching also occurs when CdTe panels are sent to landfills, where one test found that “over the course of 30 days, 73 percent of the Cd and 21 percent of the Te were released.”



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5607867/>



- **Occupational Safety and Health Administration** considers CdTe hazardous.

CdTe Solar Panel Concerns in other parts of VA: Prince George County and Madison County



Public, formal, written ban. 2020 Solar Energy Facility Siting Policy.

“All solar energy facility structures, racks and associated facilities shall have a non-reflective finish or appearance. Silicon based, or similar panels shall be used; cadmium-based panels are prohibited.”



Public, formal, written ban. 2019 Zoning Ordinance #2019-12.

“The photovoltaic panels shall not contain harmful chemicals such as Cadmium.”

“The Applicant shall provide written panel specifications to include composition, toxicological information, and the physical and chemical properties of all panels used at the facility.”

CdTe Solar Panel Concerns in other parts of VA: *Buckingham County and Caroline County*



Public, formal ban written into one SUP permit: November 2021. Condition 28.

“The applicant will be restricted from utilizing photovoltaic panels with internal components containing cadmium telluride. Only silicon type panels or those other panels that have been established as optimal standard best practice shall be utilized by the applicant.”



Public, formal ban included as Condition #29 in two Special Exception Permits: SPEX-07-2021 for Muskie Solar and SPEX-08-2021 for Shad Solar:

“SOLAR PANELS CONTAINING CADMIUM TELLURIDE SHALL BE PROHIBITED.”

CdTe Solar Panel Concerns in other parts of VA: *Chesterfield County and Louisa County*



Public, unofficial, unwritten ban.

Bermuda District Supervisor Jim Ingle:

“We haven’t allowed Cadmium Telluride panels in Chesterfield, nor do we plan to.”



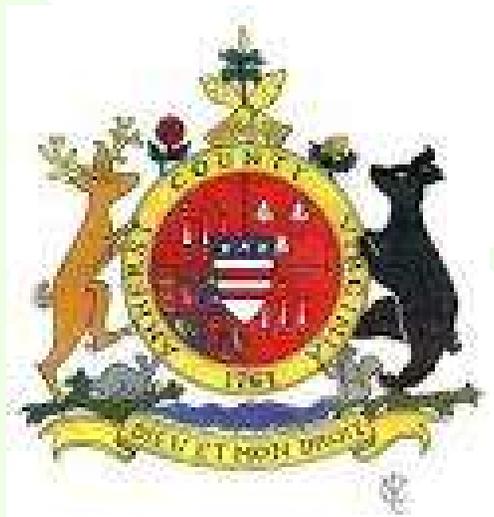
Nonpublic, annual CdTe monitoring.

Residents and outside groups campaigned against Energix Aditya over potential and disproportionate environmental harm to lower-income communities.

Energix agreed to conduct annual soil and water tests for heavy metals.

CdTe Solar Panel Concerns/Amherst County

- Each Energix CdTe solar panel contains up to four grams of Cadmium, a toxic heavy metal.
- The Cadmium in Piney River's 150,000 panels totals 1,282 pounds.
- Will there be contamination of county soil, groundwater, shallow wells, and/or downstream communities along Piney River, the James River, and the Chesapeake Bay?



CdTe Solar Panel Concerns/Piney River Solar

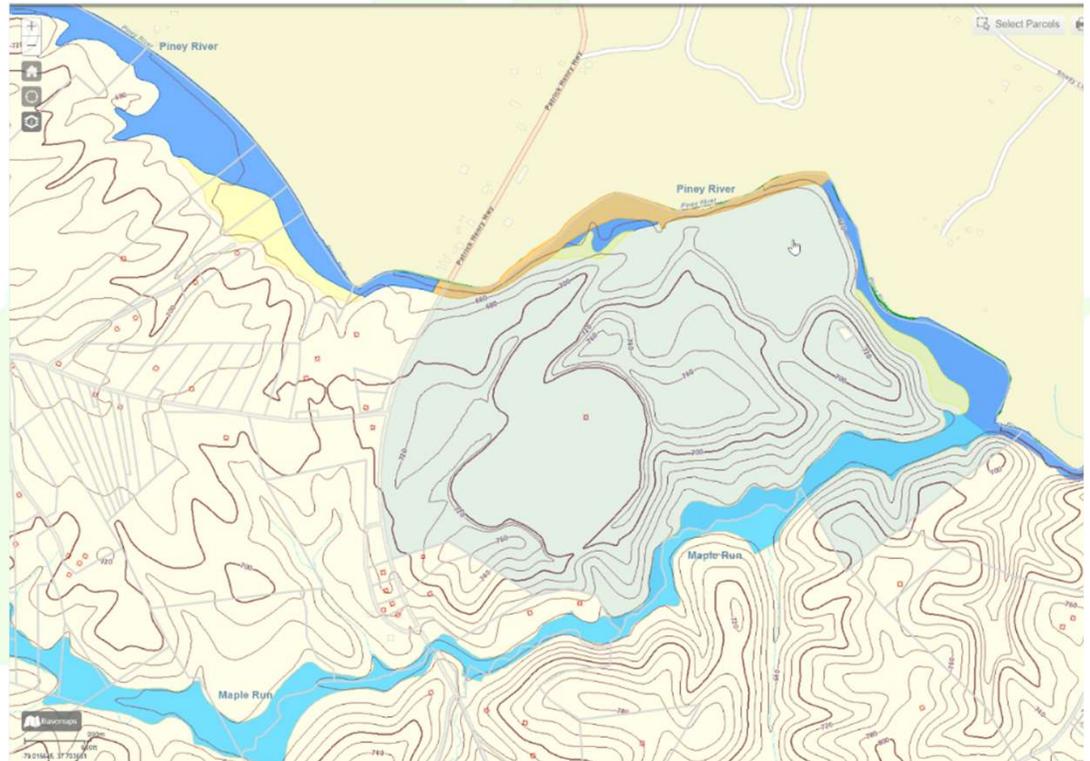
The Piney River Solar site is wedged between the floodplains of the Piney River and Maple Run.



CdTe Panel Concerns/Piney River Solar

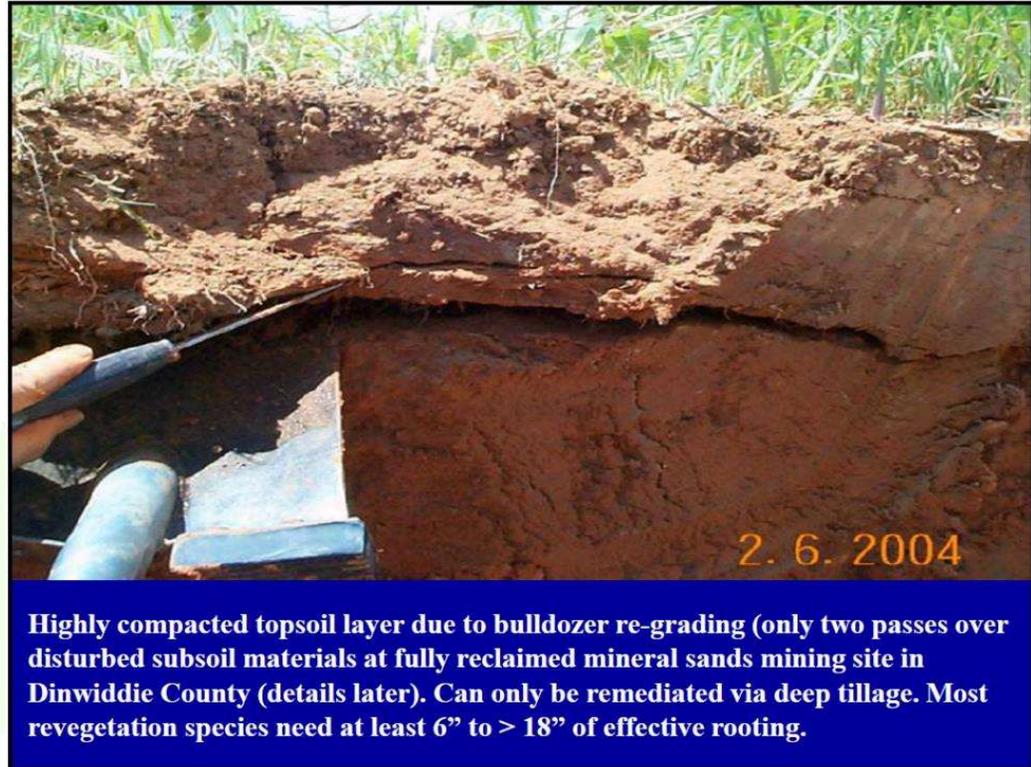
Note the difference in elevation between the highest point in the center of the light blue section (Piney River Solar site) and the lowest point on the banks of the River and the banks of Maple Run.

Will contaminants leach into the floodplains of the waterways?



Farmland Concerns/Amherst County

Will farmland in Amherst be highly compacted like the mineral sands mining site in Dinwiddie County?



Source: Large-Scale Solar Site Development & Legacy Soil Productivity Considerations, W. Lee Daniels, School of Plant & Environmental Sciences, 2022.

Virginia Communities against Energix

Dinwiddie rejects solar project agreement

Oct 31, 2021



County Bans on CdTe Panels

Prince George County – Public, formal, written ban: 2020 Solar Energy Facility Siting Policy

Madison County – Public, formal, written ban: Zoning Ord. #2019-12

Buckingham County – Public, formal, written ban: one SUP: Nov 2021

Chesterfield County – Public, unofficial, unwritten ban: Bermuda District - Jim Ingle (BoS)

Westlake solar farm plans scrapped by energy company

Jason Dunovant
and Laurence Hammack

Sep 15, 2021

Renewable energy company Energix US has scrapped plans to build a solar farm in Westlake, the company told the county this month.

Virginia: In the Circuit Court of Rockingham County

Plaintiffs

Duane R. Lam and Joni S. Lam, etc.
v.

Defendants

Board of Supervisors of Rockingham County, etc.

Complaint for Declaratory Judgment

The Plaintiffs identified above move this court for declaratory judgment against the Defendants herein, and in support thereof state as follows:

I. Basis for Jurisdiction

1. Plaintiffs move this court to declare that the December 8, 2021, vote by the Rockingham County Board of Supervisors to grant defendant Caden Energix Endless Caverns, LLC (Caden Energix) a special use permit to construct a large solar facility on property owned by, and leased from, defendants Conley and Virgil is legally null and void. Plaintiffs' statement of support is appended as Attachment 1.

VCHR Asks of Amherst County Officials

- VCHR asks officials ***NOT to approve ordinances or issue permits to*** Piney River Solar, LLC.
- VCHR asks officials to restrict solar panels that contain Cadmium Telluride until a scientific consensus is reached regarding the safety of these panels.
- VCHR asks officials to consider the risks to future land use, stormwater runoff, erosion, and property values potentially posed by this power plant.
<https://coastalagro.com/solar-farming-not-a-good-use-of-agricultural-land/>
- VCHR asks officials to consider the potential impact on the Piney River and on downstream communities along the Tye and James River and the Chesapeake Bay.