

LOOK ON THE BRIGHT SIDE: CAN SOLAR FARMS HELP TO REDUCE NITRATE POLLUTION IN FLORIDA’S SPRINGS?

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INTRODUCTION

The concentration of nitrate-nitrogen, a pollutant in surface and groundwaters, is rising rapidly due to agricultural applications and has led to excessive algae growth in Florida springs. While Florida has extensive laws that are intended to protect the quality and quantity of the greatest assemblage of artesian springs in the world,¹ these laws have not been effective in preventing significant impairment. For this reason, it is essential to explore a feasible proposal for reducing nitrate pollution and for protecting and restoring Florida's springs—solar farms. Throughout the United States; there is a patchwork of agricultural use statutes that provide a state-by-state gray area on whether building solar infrastructure on agricultural lands could allow landowners to preserve their agricultural classification for tax-benefit purposes. In Florida, with solar power generation starting to expand,² and 9.5 million acres of farmland,³ opportunities for exploring the option of placing renewable energy infrastructure on polluting agricultural lands are plentiful. Still, Florida's tax laws serve as an obstacle to the successful implementation of renewable infrastructure on agricultural lands that would allow a landowner to keep their tax benefits. Therefore, the law as it stands should be analyzed for alternative avenues, including amendments. This paper, and the recommendations listed therein, will focus on the Suwanee and Santa Fe River basin areas due to their large agricultural footprint and the numerous springs with high nitrogen levels.

Part I provides a brief overview of the restoration plans that are in place that are focused on reducing the nitrogen pollution that is impacting the water quality of Florida's springs. It also discusses how, due to Florida's growing population, the plans currently in place fall short of protecting the springs from further degradation.

Part II discusses whether converting some of the intensively farmed land in the Suwanee and Santa Fe basins to solar farms could significantly reduce nitrogen pollution in North Florida Springs. It describes what the typical footprint is for a solar farm in Florida and the importance of transmission line location, and shows, through GIS generated maps, the potential nitrogen reductions that are possible if the most polluting agricultural areas in North Florida were converted to solar farms.

Part III provides a general overview of the preferential tax treatment of agricultural lands in the United States to give some insight as to why such tax reductions are critical for landowners. It first explores the policy reasons for designating lands as agricultural under state tax codes by exploring the disproportionate effects that would occur if landowners were to be taxed using the generally used highest-and-best use method of taxation. It then provides some background on current-use valuation and the methodology used to calculate it. It also provides some examples of the wide range of eligibility requirements states use to determine whether land

¹ Florida – “Land of 1,000 Springs,” Howard T. Odum Florida Springs Institute.

² John Fialka, *Solar Power Is About to Boom in the Sunshine State: Florida has lagged in renewable energy use, but declining solar costs are set to change that*, E&E NEWS (Nov. 2, 2018), <https://www.scientificamerican.com/article/solar-power-is-about-to-boom-in-the-sunshine-state/>.

³ University of Florida, *Florida Agricultural Facts*, IFAS 1 (Mar. 2016), available at <https://ifas.ufl.edu/media/ifasufledu/ifas-dark-blue/docs/pdf/impact/FloridaAgFactsFactsheet.pdf>.

is agricultural for tax benefit purposes and the repercussions of failing to meet those qualifications.

Part IV highlights the inconsistent approaches in the United States by exploring categories of state agricultural classification and assessment statutes that provide tax benefits for landowners. The first category discusses the case law and statutory requirements in California and Florida that lead to uncertainty on whether landowners converting to solar may keep the tax benefits associated with an agricultural designation. The second category includes conditional requirements in Vermont and New Jersey that limit a landowner's ability to keep their agricultural tax benefits if they seek to build renewable energy infrastructure on the land. The third category explores North Carolina and Michigan's straightforward approach at permitting landowners to build energy infrastructure on agricultural land while categorically allowing them to keep their tax benefits.

Drawing from the various approaches of the states mentioned above, Part V proposes two possible methods in Florida to allow solar infrastructure to be built on agriculturally designated lands while allowing landowners to keep their tax benefits. It first recommends multiple changes that should be made to existing laws in Florida based on a review of relevant legislative history. It then proposes methods available under current Florida law by exploring a separate grant of authority provided by the Florida Constitution that may offer alternative ways of valuation for a different category of land. It acknowledges a few constraints to such methods and responds by proposing added modifications to existing Florida law.

I. PROTECTING AND RESTORING FLORIDA'S SPRINGS

In Florida, when impairment of a water body (including Outstanding Florida Springs) triggers development of a Total Maximum Daily Load (TMDL), Florida statute permits the creation of a Basin Management Action Plan (BMAP) by the Florida Department of Environmental Protection (FDEP).⁴ FDEP can administer a BMAP in cooperation with local water management districts and local stakeholders.⁵

The Suwannee River BMAP area is comprised of three sub-basins (Lower Suwannee River, Middle Suwannee River, and Withlacoochee River). It encompasses 1,323,662 acres in eastern Dixie, eastern Madison, western Hamilton, northeast and eastern Lafayette, western Levy, western Gilchrist, small pockets of Taylor and Columbia counties, and the majority of Suwannee County.⁶ Overall, agriculture—specifically farm fertilizer and livestock waste—are responsible for more than 85% of the nitrogen sources in each of the three sub-basins.⁷

In the Santa Fe River BMAP area, the predominant land uses where agricultural best management practices (BMPs) have been implemented to reduce nutrients include irrigated and

⁴ *Id.*

⁵ FLA. STAT. § 403.067(7)(a)(3).

⁶ Florida Department of Environmental Protection, *Suwannee River Basin Management Action Plan*, <https://floridadep.gov/sites/default/files/Suwannee%20Final%202018.pdf>.

⁷ *Id.* at 12.

non-irrigated row and field crops, pasture, irrigated vegetables, and dairies.⁸ In June 2017, a four-year progress report on the relation between the implementation of BMPs in the Santa Fe Restoration Focus Area and nitrate-N concentrations in groundwater, springs, and river water was prepared by FDEP and the Florida Department of Agriculture and Consumer Services (FDACS). According to the progress report, “[n]o significant decreases in nitrate-N concentration were observed over the four-year period in the sampled springs or Santa Fe River sites.”⁹ In fact, the BMPs have now been in place for seven years, and despite the goal of reducing nitrate pollution, overall, median nitrate-N concentrations in groundwater from sampled wells have shown a statistically significant increase during the four-year period.

With regard to future growth and its likely impact to the springs, FDACS is charged with developing estimates of statewide agricultural water demand.¹⁰ According to a June 2019 Florida Statewide Agricultural Irrigation Demand report, counties encompassing the Suwannee and Santa Fe BMAP areas may see an increase of from 33 to 50 percent in irrigation demand in the next 20 years; this increase will likely lead to similar increases in fertilizer applications.¹¹ In the face of projected population growth in the BMAP areas over the next 20 years, more wastewater, septics, and lawn fertilizer applications will also grow. Unfortunately, the future load reduction mechanisms in the current and proposed springs BMAPs do not address the projected additional load associated with population growth and added agricultural acreage.¹²

II. SOLAR FARMS AND MODEL CALCULATION FOR SOLAR OFFSET

Placing solar energy infrastructure on agricultural land that surrounds the springs can provide benefits to solar developers, landowners, and most importantly the Florida springs.¹³ Some advantages to landowners include: additional income stream and increased revenue security and the ability to keep soil fertile and allow for nutrient and land recharge which can return the land to farmland if needed.¹⁴ Benefits to the Florida springs include reducing the amount of agricultural activity on the land, thus reducing the largest contribution of nitrogen sources to the springs.

In Florida, most solar farms generate 74.5 megawatts (MW) because power plants built after October 1, 1973, generating 75 MW or more are subject to the Florida Electrical Power Plant Siting Act (PPSA).¹⁵ Many utilities take advantage of the PPSA’s 75 MW threshold, which reduces utility costs through streamlined permitting. To determine what the typical footprint for a 74.5 MW solar farm is, an evaluation of those that currently exist in Florida was made. Florida

⁸ Four-Year Progress Report for the Santa Fe RFA, January 2013–December 2016, Implementation of BMPs in the Santa Fe RFA: Nitrate-N Concentrations in Groundwater, Springs, and River Water, June 2017. Page 43.

⁹ *Id.* at vi.

¹⁰ FLA. STAT. § 570.93.

¹¹ FSAID VI (FDACS 2019) at 15.

¹² *Id.* at 22.

¹³ Chad Ray, *New opportunities for North Carolina farmers*, THE NEWS & OBSERVER, <https://www.newsobserver.com/opinion/letters-to-the-editor/article59620706.html>.

¹⁴ Jordan Macknick, Laura Caspari & Rob Davis, *Co-Location of Solar and Agriculture: Benefits and Tradeoffs of Low-Impact Solar Development*, NAT’L RENEWABLE ENERGY LABORATORY (Jan. 12, 2017), available at <https://solargrazing.org/wp-content/uploads/2019/06/Co-Location-of-Solar-and-Agriculture-NREL.pdf>.

¹⁵ FLA. STAT. § 403.506(1).

Power and Light’s (FPL) Pioneer Trail Solar Energy Center is about 450 acres.¹⁶ Additionally, as part of FPL’s “30-by-30” plan to install more than 30 million solar panels by 2030, FPL has four new solar energy centers expected to begin powering customers in early 2020 as shown in Table 1 below.¹⁷ Based on the existing solar farms in Florida, and the future solar energy center plans, each 74.5 MW solar farm would displace about 300-550 acres of agricultural land. Additionally, access to high-voltage transmission lines is necessary for the development of utility-scale solar power projects.¹⁸

Table 1: Florida Power and Light’s Proposed 30-by-30 Solar Energy Centers

County	Acreage	Number of Panels	Megawatts
Okeechobee	~550	~330,000	74.5
Palm Beach	400	~310,000	74.5
Suwannee	~500	~330,000	74.5
Manatee	~500	~330,000	74.5

As shown in the maps below, Angeline Meeks, a GIS Analyst for the Florida Springs Institute (FSI), identified the most nitrogen-polluting agricultural areas, along with their relation to springs and transmission lines in the Suwannee and Santa Fe basins, using FSI’s Blue Water Audit. The Blue Water Audit is a GIS tool that uses existing data from a variety of sources to develop nitrogen loading and groundwater withdrawal estimates at the parcel level. These estimates are used to assign an Aquifer Footprint that is made up of footprints for both nitrogen loading and groundwater withdrawal.¹⁹ Figure 1 below shows the location of agricultural lands in relation to springs and transmission lines, and Figures 2 and 3 shows the same information overlaid with Blue Water Audit results. The maps can be used as a starting point for identifying potential prospective agricultural sites for solar farms that can help offset the amount of nitrogen that enters surrounding springs. As shown, agricultural land that surrounds the springs in the Suwannee and Santa Fe basins falls within the category of “Severe Impact” with a nitrogen footprint of greater than 15 lbs. of nitrogen per acre per year. Solar farms that span up to 500 acres have the potential to reduce nitrogen loading into the surrounding Florida springs significantly.

¹⁶ Tom Holton, *FPL starts construction on 74.5-megawatt solar farm*, HOMETOWN NEWS (Oct. 11, 2018), https://www.hometownnewsvolusia.com/business/fpl-starts-construction-on-megawatt-solar-farm/article_90642fb8-caff-11e8-9021-7fba225da726.html.

¹⁷ FPL, *Future Solar Energy Centers*, <https://www.fpl.com/energy-my-way/solar/future-energy-centers.html>.

¹⁸ Solar Energy Industries Association, *Transmission*, <https://www.seia.org/initiatives/transmission>.

¹⁹ Florida Springs Institute, *Blue Water Audit Exploring Our Impact on the Floridan Aquifer*, <https://floridaspringsinstitute.org/blue-water-audit/>.



Figure 1

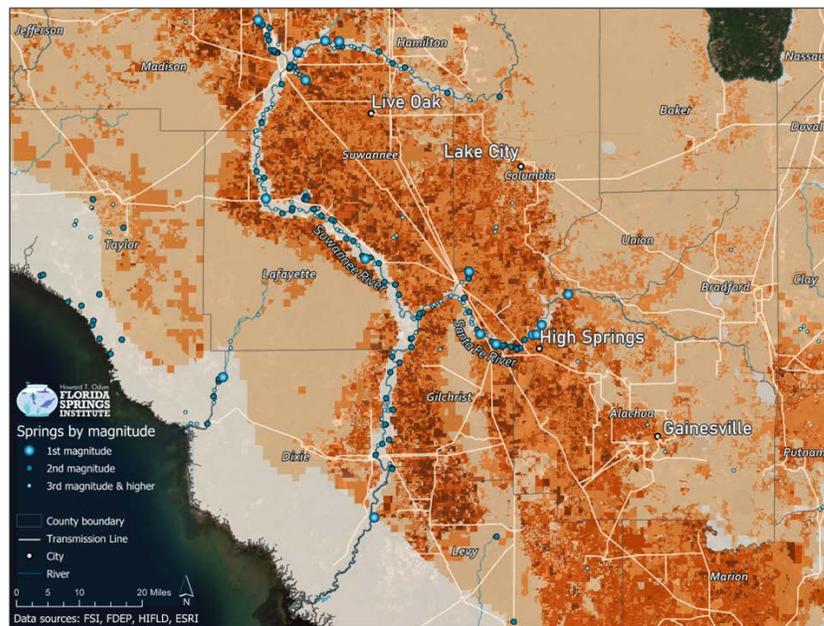


Figure 2

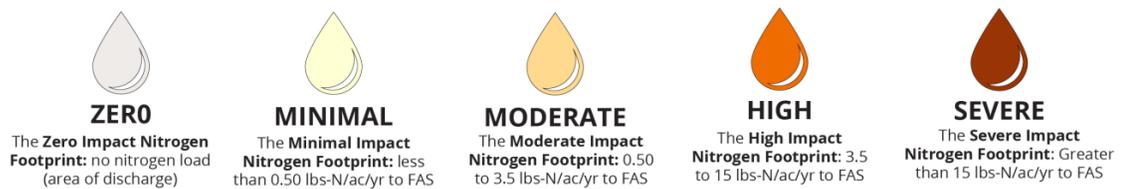


Figure 3

A barrier to building solar energy infrastructure on heavily polluting agricultural land, however, is the uncertainty in Florida law on whether agricultural lands would be eligible to keep their tax-benefit designation if solar development on the property were to occur.

III. PREFERENTIAL TAX TREATMENT OF AGRICULTURAL LANDS IN THE UNITED STATES

Much property is assessed and taxed based on the idea of highest-and-best use, a designation that is typically afforded to commercial and residential development.²⁰ When valuing a property at its highest-and-best use, appraisers are required by law to consider a variety of factors such as its present cash value, location and size, cost and condition, and income from the property.²¹ Agricultural operations that do not produce the amount of revenue required for a commercial designation, however, can span many acres, which has the potential to impose property taxes on farmland that would not be economically viable if taxed at its highest-and-best use.²² Additionally, high property taxes can bring financial pressures that may force some farmers to sell their land for development, which contributes to urban sprawl.²³ Concerns about loss of prime farmland and rapid urbanization have been the foundation of policies enacted for the preferential tax treatment of agricultural lands in the United States.²⁴

Over several decades, the process of adopting tax benefits for farmers took place at the local, state, and municipal levels.²⁵ Today, all 50 states give preferential treatment for agricultural land to help farmers keep their agricultural operations afloat through reduced property taxes.²⁶ The majority of states apply a form of use-value assessment,²⁷ or “current use” as it is commonly known, where agricultural lands are taxed according to the potential earnings from agricultural production, rather than the full or fair-market value of the property.²⁸ Early advocates of taxing agricultural lands based on a current-use assessment argued that the revenue generated from agricultural production was insufficient to cover the required taxes of the market

²⁰ John A. Swain, *The Taxation of Private Interests in Public Property: Toward A Unified Theory of Property Taxation*, 2000 UTAH L. REV. 421, 465 (2000).

²¹ Samuel J. McKim III, *Is Michigan's Ad Valorem Property Tax Becoming Obsolete?*, 77 U. DET. MERCY L. REV. 655, 671–72 (2000) (quoting *The Dictionary of Real Estate Appraisal* (1984)).

²² Alex E. Snyder, *Saving the Family Farm Through Federal Tax Policy: Easier Said Than Done*, 62 WASH. & LEE L. REV. 729, 751 (2005).

²³ Center for Agriculture & Food Systems, *Property Tax Savings For Farmland*, FARMLAND ACCESS LEGAL TOOLKIT, <https://farmlandaccess.org/propertytax/#stateresources>.

²⁴ Todd Kuethe & Bruce Sherrick, *The Taxation of Agricultural Land in the United States*, U. OF ILL. (Oct. 15, 2014), <http://policymatters.illinois.edu/the-taxation-of-agricultural-land-in-the-united-states>.

²⁵ *Id.*

²⁶ John A. Swain, *The Taxation of Private Interests in Public Property: Toward A Unified Theory of Property Taxation*, 2000 UTAH L. REV. 421, 468 (2000); Center for Agriculture & Food Systems, *Property Tax Savings For Farmland: State-By-State Resources*, FARMLAND ACCESS LEGAL TOOLKIT, <https://farmlandaccess.org/propertytax/#stateresources>.

²⁷ Center for Agriculture & Food Systems, *supra* note 23.

²⁸ Vermont Natural Resources Council, *Current Use Taxation*, COMMUNITY PLAN. TOOLBOX, <https://vnrc.org/community-planning-toolbox/tools/current-use-taxation/>.

value of the land.²⁹ Additionally, a current-use assessment encourages the preservation of farmland.³⁰

The methods used to calculate the current-use valuation associated with agricultural land vary from state to state because property taxes are not administered at the federal level.³¹ Even though agricultural lands span more acres than most types of properties, current use tax rates account for the fact that agricultural land is usually less costly to the government than residential or commercial properties because farms do not need as many services.³² Also, if a landowner wants to transfer or sell their enrolled land, the land is generally priced at its full-and-fair market value; thus, a current use assessment does not directly affect the sale price of the land.³³

The creation of an agricultural assessment demands the creation of specific qualifications that landowners must meet, and while state laws differ in this respect, there are some standard eligibility requirements.³⁴ These include limitations related to minimum acreage, minimum revenue from the sale of agricultural products, and specific activities that are considered to be an “agricultural use.”³⁵

Since protecting agricultural land is one of the underlying reasons that preferential tax treatment exists, selling land for development, or any other use that is not consistent with a state’s agricultural classification statute, can involve significant financial repercussions.³⁶ For example, some states recoup back taxes or impose substantial penalties if the land is taken out of agricultural land use and converted to other uses.³⁷ The imposition of such a penalty is commonly known as a “Land Use Change Tax” and is meant to make up for all the prior years of reduced taxation since the land will no longer be preserved for agricultural purposes.³⁸ If only a segment of the land violates the requirements of a state’s agricultural classification statute, then only that portion will be subject to a financial penalty.³⁹

²⁹ Hannah L. Brass, *A Uniform System of Taxation for Mineral Interests in Kansas*, 26 KAN. J.L. & PUB. POL’Y 176, 187 (2017).

³⁰ Teri E. Popp, *A Survey of Agricultural Zoning: State Responses to the Farmland Crisis*, 24 REAL PROP. PROB. & TR. J. 371, 397–98 (1989).

³¹ See *Eagerton v. Williams*, 433 So. 2d 436, 441 (Ala. 1983) (“This regulation . . . set forth the method to be used by tax assessors in determining the current use value of Class III property.”); see also *Fife v. Greene Cty. Bd. of Revision*, 120 Ohio St. 3d 442, 443, 900 N.E.2d 177 (2008) (“Once land has been determined to be ‘devoted exclusively to agricultural use,’ R.C. 5713.31 requires the county auditor to appraise the land in accordance with administrative rules adopted by the Tax Commissioner that prescribe the method for performing agricultural-use valuation.”).

³² Kuethe, *supra* note 24.

³³ Center for Agriculture & Food Systems, *supra* note 27.

³⁴ Justin Barnes, Chad Laurent, Jayson Uppal, Chelsea Barnes & Amy Heinemann, *Property Taxes and Solar PV Systems: Policies, Practices, and Issues*, U.S. DEP’T OF ENERGY 45 (July 2013), available at https://icma.org/sites/default/files/306462_Property%20Taxes%20and%20Solar%20PV%20Systems.pdf.

³⁵ *Id.*

³⁶ Elisa Paster, *Preservation of Agricultural Lands Through Land Use Planning Tools and Techniques*, 44 NAT. RESOURCES J. 283, 310 (2004).

³⁷ Joshua Wilkins, *Clean & Green: Tidying Up the Farm Tax Subsidy*, 115 PENN ST. L. REV. 473, 481 (2010).

³⁸ Center for Agriculture & Food Systems, *supra* note 33.

³⁹ *Id.*

A factor that is left out of discussions on current- use valuations for agricultural landowners is that despite the monetary savings in connection with an agricultural designation, what happens when landowners are not able to keep agricultural production at its most profitable? For example, smaller-scale farmers that are closer to population centers face various pressures such as encroaching development and the growth of large-scale farming.⁴⁰ Shouldn't landowners be able to establish a use that provides a different source of revenue without risking losing their agricultural land designation?

IV. VARIOUS STATE AGRICULTURAL CLASSIFICATION AND ASSESSMENT STATUTES THAT PROVIDE TAX BENEFITS FOR LANDOWNERS HAVE INCONSISTENT APPROACHES TO BUILDING SOLAR INFRASTRUCTURE ON AGRICULTURAL LAND

Agricultural land in states such as California, Florida, Vermont, New Jersey, North Carolina, and Michigan currently benefit from an agricultural use designation under their respective agricultural classification and assessment statutes because the reduced value of the property allows property owners to pay a significantly lower amount in property taxes.⁴¹ As utility companies plan to expand their solar footprint, agricultural land is also an appealing option for many utility companies that are deciding where to build renewable energy facilities.⁴² This part compares a few state approaches to co-locating solar infrastructure on agricultural land to highlight some of the inconsistent approaches that exist in the United States concerning whether landowners can keep their preferential tax treatment. It is important to note, however, that the following states do not implement preferential tax treatment programs for agricultural land in order to reduce pollutants. Instead, they are in place for the reasons mentioned above—to conserve agricultural land and reduce taxes for landowners.

A. States Where Agricultural Landowners' Ability to Keep Tax Benefits Is Unclear

Case law in states such as California reflects the inconsistent findings by property appraisers on whether renewable energy is consistent with agricultural use, which ultimately leads to an ambiguous standard that may or may not allow renewable infrastructure on agricultural land. Also, case law in states such as Florida, although not in the context of renewable infrastructure, highlights the struggle that courts face in determining what activities constitute an agricultural use and how much of it is needed for preferential tax treatment.

1. California

In California, the Williamson Act, also known as the California Land Conservation Act of 1965, creates an incentive program for landowners of agricultural land to enroll their land in a no-development program.⁴³ Instead of paying traditionally calculated property tax that takes into

⁴⁰ Todd W. Daloz, *Farm Preservation: A Vermont Land-Use Perspective*, 12 VT. J. ENVTL. L. 427, 434 (2011).

⁴¹ Doug Stienbarger, *Do You Qualify For Reduced Property Taxes? Current Use Taxation*, WASH. ST. U. (2014), available at <https://s3.wp.wsu.edu/uploads/sites/2079/2014/04/current-use-15.pdf>.

⁴² Christine Souza, *Energy Mandates Touch Off a Rush for Open Farmland*, AGALERT (Sept. 14, 2011), <http://www.agalert.com/story/?id=2510>.

⁴³ Amy Odens, *A New Crop for Agricultural Land: The Renewable Energy Mandate and Its Potential to Turn Farm Lands into Energy Fields*, 44 MCGEORGE L. REV. 1037, 1043 (2013); see also Cal. Gov't Code § 51296.2 (West 2019).

account the value of the demand for the land, the Williamson Act provides that landowners only pay property tax proportional to the capital income gained from the agricultural use, or “compatible use” of the land.⁴⁴ Therefore, if landowners enroll their land in Williamson Act contracts, they receive tax breaks and savings that ultimately incentivize them not to sell their land and to maintain production.⁴⁵ To maintain such a classification and its corresponding tax breaks, when determining if something is a compatible use, it is within the discretion of the city or county to find whether uses approved on contracted lands are consistent with certain principles of compatibility.⁴⁶ Such compatible uses are described within the act as those concerning “gas, electric, water, communication, or agricultural laborer housing facilities.”⁴⁷

Although the Williamson Act includes a list of compatible uses, additional uses may be approved by a local board or council.⁴⁸ Despite the apparent flexibility of the Williamson Act, there is uncertainty as to what types of activities would be considered within the reach of the Act. For example, in *Save Panoche Valley v. San Benito County*, SolarGen Energy, Inc., a solar developer requested that San Benito County make a finding that a large-scale solar development project was compatible with the Williamson Act.⁴⁹ The court, in that case, held that substantial evidence supported the county’s determination that the public’s interest in renewable energy outweighed the purpose of the Williamson Act, and that the county could cancel Williamson Act agricultural land contracts to facilitate solar developments.⁵⁰ On the other hand, a small number of counties have approved development of solar energy projects without cancellation of Williamson Act contracts.⁵¹

In 2011, the California Legislature reacted to this ambiguity through the passage of Chapter 596.⁵² Under Chapter 596, only lands with limited agricultural value can be withdrawn from a Williamson Act contract and enrolled in a solar easement contract.⁵³ However, some provisions of Chapter 596 leave open the possibility for county officials to find that solar development on non-fallow land is a compatible use.⁵⁴ Due to these inconsistencies, there is uncertainty in California on whether co-siting renewable energy infrastructure on agricultural lands would allow a landowner to keep their agricultural use designation.

2. Florida

In Florida, under §193.461, F.S. (Greenbelt Statute), lands that are used for “bona fide agricultural purposes” are taxed based on the current “use” value of the property versus its

⁴⁴ Cal. Gov’t Code § 51296.2 (West 2019).

⁴⁵ *Id.*

⁴⁶ *See id.* § 51238.1(a)(1)–(3).

⁴⁷ *See id.* § 51238(a)(1).

⁴⁸ *See id.* § 51238.1 (b)–(c).

⁴⁹ *Save Panoche Valley v. San Benito County*, 217 Cal. App. 4th 503, 158 Cal. Rptr. 3d 719, 727 (2013).

⁵⁰ *Id.* at 743.

⁵¹ Jenna Chandler, *Wind, solar farms OK on some Williams Act lands*, PORTERVILLE RECORDER, (Sept. 01, 2010), https://www.recorderonline.com/wind-solar-farms-ok-on-some-williams-act-lands/article_b22066ae-ac52-5589-b40d-2e33e158802e.html.

⁵² Odens, *supra* note 43, at 1046.

⁵³ *Id.*

⁵⁴ *Id.*

development value, which is typically much higher.⁵⁵ For a property to qualify for a Greenbelt Statute agricultural classification, the statute mandates that the primary use of the property be for “bona fide agricultural purposes” or “good faith commercial agricultural use.”⁵⁶ Once a property owner completes and submits an official application to their county tax assessor, the property is inspected by a property appraiser who will determine the actual use of the property.⁵⁷ Some of the factors that a property appraiser may take into account, as provided for in the Greenbelt Statute, are: length of time the property has been used for agricultural use, the size of the property as it relates to the specific agricultural use of the property, or whether acceptable agricultural practices are in place for the proper and adequate care of the land.⁵⁸

Currently, no case law in Florida exists to determine whether placement of renewable energy infrastructure on agricultural land could take away or maintain the agricultural designation under the Greenbelt Statute. However, if Florida were to attempt to make solar infrastructure qualify as an agricultural use through statutory changes and follow the approach taken by states such as Vermont as explained below, there is some case law describing what “bona fide agricultural purposes” means. Since the law defines a “bona fide agricultural purpose” as a “good faith commercial agricultural use of the land,”⁵⁹ it is the “commercial” and “agricultural use” requirement that presents a challenge for co-siting. In *Gianolio v. Markham*, the property appraiser had concluded that the landowner did not have a reasonable expectation of making a profit, and therefore it was not a “good faith commercial operation.”⁶⁰ The court provided clarification regarding “commercial” in ruling that profit achieved through the use of the land need only suffice to sustain that particular use.⁶¹ Additionally, in *Straughn v. Tuck*, the Florida Supreme Court stated that commercial agricultural use is only one factor in determining whether or not a claimed agricultural use is bona fide, thereby not limiting agricultural classification to commercially profitable agricultural operations.⁶² This case law suggests that the Greenbelt Statute’s convoluted attempt at defining “bona fide agricultural purposes” may include categories not explicitly listed in the statute. Like California, it is not clear in Florida whether placing renewable infrastructure on agricultural land counts as a “bona fide agricultural purpose” for tax-benefit purposes.

B. States That Limit Ability of Agricultural Landowners to Keep Tax Benefits

Although some states allow co-location under their agricultural classification and assessment statutes, they limit a landowner’s ability to install solar energy infrastructure because of strict requirements needed to receive preferential tax treatment.

I. Vermont

⁵⁵ Fla. Stat. § 193.461 (2019).

⁵⁶ *Id.* at § 193.461(3)(b).

⁵⁷ Saunders Ralston Dantzler, *Florida Greenbelt Law: Applying for Agricultural Classification*, <https://www.saundersrealestate.com/farms-for-sale-in-florida/florida-greenbelt-law-applying-for-agricultural-classification/>.

⁵⁸ Fla. Stat. § 193.461(3)(b)(1)(a.)–(g.) (2019).

⁵⁹ *Id.* at § 193.461(3)(b).

⁶⁰ *Gianolio v. Markham*, 564 So. 2d 1131, 1135 (Fla. Dist. Ct. App. 1990).

⁶¹ *Id.*

⁶² *Straughn v. Tuck*, 354 So. 2d 368, 370-71 (Fla. 1977).

Like similar laws in other states, Vermont's Land Use Value Appraisal Program is a tax model that taxes agricultural property based on its current use rather than its market-based potential for development.⁶³ Like others, its purpose is to decrease the property tax rate to promote the maintenance of agricultural land in the face of development pressure.⁶⁴ Despite the program's attempt at creating an incentive for the active use of farmland, the statute does not directly enable farmers to build solar arrays on the land without compromising their tax benefit designation.⁶⁵ Since the statute does not specifically address solar power, in 2015, the Vermont Department of Taxes released a technical bulletin that described the "circumstances in which the installation of a solar generating facility affects a property's eligibility for the Current Use Program."⁶⁶ The document clarified that solar energy facilities are allowed on property in the current use program as long as the panels qualify as a farm improvement and are considered part of a farm operation, meaning that at least half or more of the electricity generated must be used on the farm.⁶⁷ This can put an unrealistic limit on farmers that do not require that much power generation for their agricultural production.⁶⁸

2. *New Jersey*

Similarly, in New Jersey, the Farmland Assessment Act of 1964 provides special agricultural assessment for land that comprises at least five contiguous acres under "active agricultural use."⁶⁹ In 2010, legislation was enacted to accommodate the limited use of specially assessed agricultural land for the production of renewable energy, including solar energy generation structures.⁷⁰ To remain eligible for preferential tax treatment, however, agricultural landowners must meet several criteria outlined in the statute.⁷¹ Some of these requirements include: the power generated by a photovoltaic system must be used primarily to meet on-site energy needs⁷² and the property underlying the solar panels must be used to the greatest extent practicable for the production of shade crops, pasture, or grazing.⁷³ Additional parameters include limiting solar development to ten acres of the agricultural land and limiting power generation to no more than two megawatts. Much like Vermont law, although the New Jersey law is designed to provide opportunities for agricultural landowners to benefit from on-site renewable energy generation and to maintain the core principle of agricultural preservation that justifies the preferential tax assessment, many landowners may not be able to meet the specific requirements delineated in the statute.⁷⁴

⁶³ Vt. Stat. Ann. tit. 32, § 3751 (West).

⁶⁴ *Id.*

⁶⁵ Elizabeth Hewitt, *Solar panels on farmland spur debate about development, taxes*, VTDIGGER (June 14, 2016), <https://vtdigger.org/2016/06/14/solar-panels-on-farmland-spur-debate-about-development-taxes/>.

⁶⁶ Mary N. Peterson, Commissioner of Taxes, *Solar Generating Facilities Constructed on Land Enrolled in the Current Use Program*, VT. DEP'T OF TAXES (July 13, 2015), available at <https://tax.vermont.gov/sites/tax/files/documents/TB69.pdf>.

⁶⁷ *Id.* at 1.

⁶⁸ Hewitt, *supra* note 65.

⁶⁹ N.J. Stat. Ann. § 54:4-23.3 (West).

⁷⁰ N.J. Stat. Ann. § 4:1C-32.4 (West).

⁷¹ *Id.* at § 4:1C-32.4(a)-(h).

⁷² N.J. Stat. Ann. § 54:4-23.3c(b)(1) (West).

⁷³ *Id.* at § 54:4-23.3c(b)(5).

⁷⁴ Justin Barnes, Chad Laurent, Jayson Uppal, Chelsea Barnes & Amy Heinemann, *Property Taxes and Solar PV Systems: Policies, Practices, and Issues*, U.S. DEP'T OF ENERGY 45 (July 2013), available at https://icma.org/sites/default/files/306462_Property%20Taxes%20and%20Solar%20PV%20Systems.pdf.

C. States That Allow Agricultural Landowners to Keep Tax Benefits

Some states have a more straightforward approach to placing solar infrastructure on agricultural land within the context of their agricultural classification and assessment statutes. In states such as North Carolina and Michigan, such co-location is acceptable because bifurcation of activities upon the land is allowed. One of the only requirements is for agricultural production to continue in conjunction with solar energy production.

1. North Carolina

In North Carolina, under §105-277.4, N.C.G.S., agricultural land is eligible to be taxed based upon farm use.⁷⁵ Property classified as agricultural lands is eligible for taxation based on the value of the property in its present use if a timely and proper application is filed with the assessor of the county in which the property is located.⁷⁶ The application must clearly show that the property comes within one of the classes defined in §105-277.3, N.C.G.S., and must also contain any other relevant information required by the assessor to properly appraise the property at its present or current use value.⁷⁷ If the landowner wishes to place solar infrastructure on their land and maintain the land in the present or current use value system, agricultural production and solar production must be maintained simultaneously.⁷⁸ This will necessitate a type of agricultural production compatible with solar farm use.⁷⁹ An example of a compatible use is the development of pasture either for grazing or harvest.⁸⁰ With providers of solar energy in North Carolina offering agricultural landowners the option to build solar panels on portions of their land through a lease, co-location can generate electricity for off-site use without compromising a lands agricultural designation.⁸¹ Additionally, to keep in line with one of the policies behind preferential tax treatment—preservation of farmland—the North Carolina Department of Agriculture and Consumer Services, North Carolina State University, North Carolina Cooperative Extension and state non-profit organizations developed a document known as the North Carolina Pollinator Protection Strategy as a way of implementing pollinator habitat on solar farms.⁸² The document includes strategies for farmers to best maintain solar farms to

⁷⁵ N.C. Gen. Stat. Ann. § 105-277.4.

⁷⁶ *Id.* at § 105-277.4(a).

⁷⁷ *Id.*

⁷⁸ Mike Carroll, *Considerations for Transferring Agricultural Land to Solar Panel Energy Production*, N.C. COOPERATIVE EXTENSION, <https://craven.ces.ncsu.edu/considerations-for-transferring-agricultural-land-to-solar-panel-energy-production/>.

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ Robin Aldina, *North Carolina Solar and Agriculture*, N.C. SUSTAINABLE ENERGY ASS'N 12 (Apr. 2017), available at https://energync.org/wp-content/uploads/2017/04/NCSEA_NC_Solar_and_Agriculture_4_19.pdf; see also Christopher Gergen & Stephen Martin, *N.C. solar is bright, but for how long?*, CHARLOTTE OBSERVER, <https://www.charlotteobserver.com/opinion/op-ed/article14059787.html>.

⁸² Olivia Eskew, *A National Strategy for the Co-location of Solar and Agriculture: Native Pollinator Habitat Establishment on Solar Farms in the United States-A Multifaceted Guide to Best Sustainable Practices*, Nicholas School of the Env't of Duke U., available at https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/16512/Eskew_Olivia_Masters_Project.pdf?sequence=1&isAllowed=y.

ensure the longevity of pollinator habitats that play a vital role in the size, health, and quality of the United States' food supply.⁸³

2. *Michigan*

In Michigan, the Michigan Farmland and Open Space Preservation Act (PA 116) preserves farmland through tax-benefit incentives.⁸⁴ The feasibility of the co-location of solar infrastructure on agricultural land along with the maintenance of tax benefits did not come without its challenges. In 2017, the state issued a tax policy stating that commercial solar development was not compatible with PA 116 agreements, and landowners would have to end their farmland preservation contracts if they entered into commercial solar leases.⁸⁵ In 2019, in an effort to expand revenue sources for farmers and access to renewable energy that will help “meet the growing demand for clean, renewable energy sources,”⁸⁶ the Michigan Department of Agriculture & Rural Development announced that “[u]tility scale solar facilities may be permitted on land enrolled in a . . . (PA 116 Agreement) under certain circumstances.”⁸⁷ The circumstances provided in the updated policy range from asserting that the Michigan Department of Agriculture and Rural Development has approved the placement of the solar panels to the owner agreeing to plant a cover crop including pollinator habitat under the solar panels to reduce erosion and to maintain soil fertility.⁸⁸

V. **PROPOSED SOLUTIONS TO ALLOW SOLAR INFRASTRUCTURE TO BE BUILT ON AGRICULTURAL LANDS IN FLORIDA WHILE MAINTAINING TAX BENEFITS**

This review of multiple states' agricultural classification statutes reveals a range of ambiguity on whether solar infrastructure affects an agricultural designation for tax-benefit purposes. Since Florida falls within an uncertain category, how can the Greenbelt Statute, or the Florida Constitution, be reformed to allow the building of solar infrastructure on agricultural land while still allowing agricultural landowners to keep their preferential tax treatment? Are there

⁸³ North Carolina Department of Agriculture and Consumer Services, *Introduction to the North Carolina Pollinator Protection Strategy*, available at www.ncagr.gov/pollinators/documents/Introtostrategy.pdf.

⁸⁴ Mich. Comp. Laws Ann. § 324.36101 (West).

⁸⁵ Michigan Department of Agriculture & Rural Development, *Commercial Solar Facilities on PA 116 Land*, ENVTL. STEWARDSHIP DIVISION (May 2017), available at https://www.michigan.gov/documents/mdard/Commercial_Solar_Facilities_on_PA_116_Land_577731_7.pdf; see also Andy Balaskovitz, *Michigan revisits policy that limits solar development on farmland*, MIDWEST ENERGY NEWS NETWORK (Apr. 10, 2019), <https://energynews.us/2019/04/10/midwest/michigan-revisits-policy-that-limits-solar-development-on-farmland/>.

⁸⁶ Jim Malewitz, *Gov. Gretchen Whitmer opens up more Michigan Farmland to solar power*, MICH. ENV'T WATCH (June 3, 2019), <https://www.bridgemi.com/michigan-environment-watch/gov-gretchen-whitmer-opens-more-michigan-farmland-solar-power>.

⁸⁷ Michigan Department of Agriculture & Rural Development, *Commercial Solar Facilities on PA 116 Enrolled Land*, ENVTL. STEWARDSHIP DIVISION (June 6, 2019), available at https://www.michigan.gov/documents/mdard/Commercial_Solar_Facilities_on_PA_116_Enrolled_Lands_656804_7.pdf; see also Jim Malewitz, *Gov. Gretchen Whitmer opens up more Michigan Farmland to solar power*, MICH. ENV'T WATCH (June 3, 2019), <https://www.bridgemi.com/michigan-environment-watch/gov-gretchen-whitmer-opens-more-michigan-farmland-solar-power>.

⁸⁸ Michigan Department of Agriculture & Rural Development, *Commercial Solar Facilities on PA 116 Enrolled Land*, ENVIRONMENTAL STEWARDSHIP DIVISION (June 6, 2019), available at https://www.michigan.gov/documents/mdard/Commercial_Solar_Facilities_on_PA_116_Enrolled_Lands_656804_7.pdf.

methods available under current Florida law to make this possible? This Part argues that the Greenbelt Statute should be amended to allow solar farms to qualify as a “bona fide” agricultural use. Alternatively, this Part also argues that the Florida Constitution should be amended to explicitly provide for current use valuation of renewable energy infrastructure. This Part also discusses methods available under existing Florida law and acknowledges and responds to potential roadblocks to these approaches.

A. Florida Should Amend the Greenbelt Statute or Initiate a Constitutional Amendment

The Florida Constitution grants to the Florida Legislature the authority to provide for special classification and preferential assessment of several types of property, including agricultural lands.⁸⁹ The Greenbelt Statute, promulgated pursuant to this constitutional authority, grants preferential assessment to any parcel of land used for “bona fide agricultural purposes” and delineates the factors that appraisers may consider in determining an agricultural classification.⁹⁰ For co-location to be considered a “bona fide” agricultural use, the Florida Legislature could change the language in the Greenbelt Statute that discounts property taxes for agricultural uses to include “solar farms” as a qualified “bona fide” agricultural use, removing any ambiguity as to whether it is consistent with the statutory requirements of the Greenbelt Statute. Alternatively, flexibility could be added to the Greenbelt Statute by allowing a landowner to place solar panels on the land as long as they maintain a certain percentage of the land within a statutorily designated agricultural use.

Determining whether the Greenbelt Statute should be amended to allow solar development on agricultural land requires consideration of the intent behind the statute. The Greenbelt Statute is a manifestation of Florida’s policy for agriculture to remain a viable component of Florida’s economy.⁹¹ Additionally, the Florida Legislature has stated that preserving agriculture helps to further several important goals, including preserving the landscape and environmental resources of the state and advancing the economic self-sufficiency of its people.⁹² It is arguable then that the benefits of co-location of solar infrastructure on agricultural lands are consistent with the intended goals of the Greenbelt Statute because it can produce economic benefits to both landowners and solar developers and preserve the agricultural production of the land while reducing nitrogen levels that affect the Florida springs.

An alternative to amending the language of the Greenbelt Statute may lie in a constitutional amendment allowing current use valuation or property tax incentives for solar facilities, or generally, land used for renewable energy infrastructure. It is possible that if farmers leased their land for solar arrays under this proposition, they are likely to see as much income from those agreements as they would save on the tax benefits from a current use valuation.⁹³ The

⁸⁹ Fla. Const. art. VII, § 4(a); *see also* James S. Wershow Edward S., *Ad Valorem Assessments in Florida-Recent Developments*, 36 U. MIAMI L. REV. 67, 73 (1981).

⁹⁰ Fla. Stat. § 193.461 (2019).

⁹¹ Fla. Stat. § 163.3162(1) (2019).

⁹² *Id.*

⁹³ Catherine Collins & Anju Chopra, *Property Tax Incentives for Renewable Energy: Pervasive Yet Idiosyncratic*, GEORGE WASH. U. 212 (Oct. 21, 2013), *available at*

option to lease from agricultural landowners could be a cheaper alternative for utilities in Florida that are buying expensive tracts of land for the development of solar facilities.⁹⁴ If agricultural landowners and utility companies work together to secure solar sites throughout the state, the electricity generated from co-located sites could help the state become a leader in the production of solar energy.

B. Methods Available Under Current Florida Law

The Florida Constitution requires that all property be assessed at just value for ad valorem tax purposes but authorizes specific alternatives to the just value standard.⁹⁵ The properties that may be assessed solely on the basis of their character or use include agricultural land as described above, land producing high water recharge to Florida’s aquifers, land used exclusively for noncommercial recreational purposes, and land used for “conservation purposes.”⁹⁶ An additional argument might be relevant under the conservation purposes clause of the Florida Constitution, which allows for either an exemption for a perpetual easement or a current use classification for lands subject to a conservation easement when land development rights have been conveyed, or conservation restrictions have been covenanted.⁹⁷

1. The two methods of property tax relief for conservation land

Florida law provides two methods of property tax relief for conservation land. Florida House Bill 7157 went into effect in January 2010 under §196.26, F.S. (Tax Exemption Statute), which provides property tax exemption for real property dedicated in perpetuity for conservation purposes⁹⁸ and §193.501, F.S. (Current Use Classification Statute), which provides a current use tax assessment of land used for conservation.⁹⁹ In both cases, the land must meet the requirements of a “conservation easement,” as defined in §704.06, F.S.¹⁰⁰

For land to qualify under the Tax Exemption Statute, it must be dedicated in perpetuity, be used exclusively for conservation purposes, and be comprised of at least 40 contiguous acres.¹⁰¹ Land dedicated in perpetuity is “land encumbered by an irrevocable, perpetual conservation easement,”¹⁰² and “conservation purposes” is limited to the definition set forth by federal law in 26 U.S.C. §170(h)(4)(A)(i)–(iii).¹⁰³ The term “conservation purposes” in this context generally means: the preservation of land areas for outdoor recreation; the protection of a

<https://gwipp.gwu.edu/sites/g/files/zaxdzs2181/f/downloads/Property%20Tax%20Incentives%20for%20Renewable%20Energy%20October%202013.pdf>.

⁹⁴ Jeff Ostrowski, *FPL buys nearly 1,300 acres for another solar farm in western Palm Beach County*, PALM BEACH POST (July 27, 2018, 2:28 AM), <https://www.palmbeachpost.com/business/fpl-buys-nearly-300-acres-for-another-solar-farm-western-palm-beach-county/zxxipasrdh8pYKZ4GFXQFI/>.

⁹⁵ Fla. Const. art. VII, § 4.

⁹⁶ *Id.* at (a)–(d).

⁹⁷ *Id.* at (b).

⁹⁸ Fla. Stat. § 196.26(2) (2019).

⁹⁹ Fla. Stat. § 193.501(3)(a) (2019).

¹⁰⁰ Fla. Stat. § 193.26(2) (2019); *see also* Fla. Stat. §193.501(1) (2019).

¹⁰¹ Fla. Stat. § 196.26(2) and (4) (2019); *see also* Terra M. Fisher, *The Productivity Problem: An Analysis of Conservation Easement Taxation Issues Following South Dakota’s Implementation of A Productivity-Based Land Valuation System*, 60 S.D. L. REV. 353, 363 (2015).

¹⁰² Fla. Stat. § 196.26(1)(d) (2019).

¹⁰³ Fla. Stat. § 196.26(1)(c)(1) (2019).

relatively natural habitat of wildlife or plants; and the preservation of open space that includes farmland where such preservation is for the scenic enjoyment of the general public or pursuant to a clearly delineated state conservation policy that will yield a significant public benefit.¹⁰⁴

Alternatively, for land to qualify under the Current Use Classification Statute, it must be subject to a conservation easement or designated as conservation land in a comprehensive plan “for a term of not less than 10 years.”¹⁰⁵ According to the Current Use Classification Statute, the owner of such land may either convey the development rights of the land to the governing board of any public agency in Florida, the Board of Trustees of the Internal Improvement Trust Fund, or a charitable corporation¹⁰⁶ or, covenant with those same entities that such land be subject to one or more of the conservation restrictions provided in §704.06(1), F.S.¹⁰⁷ A transfer of development rights allows the development rights that are attributable to one piece of land to be transferred to another and is an alternative to either buying the land that is sought to be preserved or “abandoning any attempt to preserve ecologically sensitive areas.”¹⁰⁸

Both methods available under current Florida law must meet the definition of a “conservation easement” under §704.06, F.S. A conservation easement, as defined in the statute, is a perpetual undivided interest in property that may be created or stated in the form of a restriction, covenant, or condition in any deed, will, or other instrument executed by the owner of the property.¹⁰⁹ Conservation easements in Florida are used either as a method to preserve property in its natural state as suitable habitat for fish, plants, or wildlife or to maintain and assure the land’s availability for its existing land use such as an agricultural use.¹¹⁰ Additionally, if agricultural activities are a current or historic use of the land, then a conservation easement may include provisions that allow activities that include silviculture and livestock grazing.¹¹¹ Although conservation easements under Florida law offer flexibility because they consider the landowner’s needs, there are still specific conservation objectives under §704.06, F.S., that must also be taken into consideration. Generally, those objectives prohibit or limit: construction of utilities or other structures on or above the ground; removal or destruction of trees or other vegetation; excavation or removal of soil; or activities detrimental to erosion control.¹¹²

Complying with the statutory aims of §704.06, F.S., may create an apparent hurdle for the development of solar infrastructure on agricultural land. The concept of co-developing the same area of land for both solar power and conventional agriculture, known as “agri-voltaics” or “agro-photovoltaics”¹¹³ however, might be a solution that helps make co-location under the Tax Exemption Statute or the Current Use Classification Statute fall within the parameters of the

¹⁰⁴ 26 U.S.C.A. § 170(h)(4)(A)(i)–(iii) (West).

¹⁰⁵ Fla. Stat. § 193.501(1) (2019).

¹⁰⁶ *Id.* at § 193.501(1)(a).

¹⁰⁷ *Id.* at § 193.501(1)(b).

¹⁰⁸ *City of Hollywood v. Hollywood, Inc.*, 432 So. 2d 1332, 1337 (Fla. Dist. Ct. App. 1983).

¹⁰⁹ Fla. Stat. § 704.06(2) (2019).

¹¹⁰ *Id.* at § 704.06(1) and (3).

¹¹¹ *Id.* at § 704.06(13).

¹¹² *Id.* at § 704.06(1)(a)–(h).

¹¹³ Philip Gordon, *A new crop – world’s energy needs can be powered by farmland-based solar*, SMART ENERGY INT’L, <https://www.smart-energy.com/renewable-energy/agrivoltaic-worlds-energy-needs-can-be-powered-by-farmland-based-solar/>.

statutory definition of a conservation easement under §704.06, F.S. The simultaneous use of both an agricultural use and solar infrastructure has been deemed compatible and flexible enough to coincide with each other.¹¹⁴ For example, panels that are placed higher off the ground enable shade-tolerant crops underneath to grow.¹¹⁵ Additionally, solar panels that are placed further apart allow farming equipment to navigate and work underneath them.¹¹⁶ One of the most relevant factors to consider in terms of the compatibility of solar infrastructure and the conservation purposes outlined in Florida law is the non-intrusive nature of the installation and maintenance of solar panels and the effects that they have on the ground below.¹¹⁷ For example, extra grading to flatten land to a usable level is not necessary for previously cultivated agricultural land.¹¹⁸ Additionally, silicon-based photovoltaic cells, which is the most widespread technology used, have been found to not present a significant risk of leaching of trace metals “due to the sealed nature of the installed cells.”¹¹⁹ Therefore, the benefits associated with agri-voltaics that ultimately limits removal of vegetation and the removal and contamination of soil can be construed to fit within the definition of a conservation easement under §704.06, F.S., and the conservation objectives listed therein.

2. Shortcomings and solutions to the methods available under current Florida law

Although both of the options available under Florida law may be feasible alternatives to accomplish building solar infrastructure on agricultural land, the types of agreements that are required are ones that may not appeal to landowners. For example, landowners may not be willing to dedicate their land in perpetuity, convey the development rights of the land to the several entities required by the Current Use Classification Statute, or covenant that their land besubject to conservation restrictions.

For reluctant landowners of agricultural land to be more amenable to dedicating or leasing their land for the development of solar infrastructure, the statutorily required time commitment of a perpetual interest should be reduced. This change can first be achieved through an amendment to the statutory language of §704.06, F.S., which states that conservation easements are perpetual interests in property. This change can also be achieved through an amendment to the Tax Exemption Statute, the Current Use Classification Statute, or the creation of entirely new legislation. For example, the tax exemption provided for under the Tax Exemption Statute can be explicitly extended to the co-location of renewable energy infrastructure on agricultural land for a non-perpetual period either in the form of a newly created and term-limited “Solar Farm Easement” or term-limited lease. Since a typical lease for a

¹¹⁴ Ashis Parida, *Agrophotovoltaics or Agrovoltaics – The Future of Modern Farming*, GREENOMICS WORLD (Apr. 26, 2019), <https://www.greenomicsworld.com/agrophotovoltaics-or-agrovoltaics-the-future-of-modern-farming/>.

¹¹⁵ Jessica Owley & Amy Wilson Morris, *The New Agriculture: From Food Farms to Solar Farms*, 44 Colum. J. Envtl. L. 409, 440 (2019).

¹¹⁶ *Id.*

¹¹⁷ Office of Energy Efficiency & Renewable Energy, *Farmer’s Guide to Going Solar*, Solar Energy Tech. Off., <https://www.energy.gov/eere/solar/farmers-guide-going-solar>.

¹¹⁸ *Id.*

¹¹⁹ K. Summers & J. Radde, *Potential Health and Environmental Impacts Associated With the Manufacture and Use of Photovoltaic Cells*, EPRI 5 (Nov. 2003), <https://www.epri.com/#/pages/product/1000095/?lang=en-US>.

solar farm is based upon a 20 to 30-year time period for financing purposes,¹²⁰ a lease can be extended to this amount of time for agreements between solar developers and landowners or utilities and landowners. The classification for lands subject to the Current Use Classification Statute, which provides that the value of land used for conservation purposes be assessed using current use valuation, can be altered to allow landowners to convey the development rights of the land to entities other than the governing board of any public agency in Florida, the Board of Trustees of the Internal Improvement Trust Fund, or a charitable corporation.

VI. CONCLUSION

As utility companies plan to expand their solar generation and landowners look to diversify their sources of income, solar farms provide an opportunity to incorporate energy generation into a landowner's financial portfolio while limiting agricultural production that pollutes and degrades the water quality of the Florida springs with harmful nutrients. The preferential tax treatment given to agricultural landowners throughout the United States, including Florida, however, was not put in place for the purpose of environmental protection. Therefore, further research, in cooperation with GIS analysts, should be pursued. Such research can first identify case studies of specific parcels that have already been converted to solar farms as part of FPL's "30-by-30" plan, and whether such parcels were once classified as agricultural under the Greenbelt Statute. Then, it can be determined whether the current Greenbelt Statute tax rate can be adjusted so that utilities are incentivized to lease or buy from agricultural lands that are the most polluting, which would ultimately help reduce the harmful levels of nitrogen in the springs. With the expansion of renewable energy use on agricultural land across the United States, solar energy infrastructure on the most polluting agricultural lands in the Sunshine State, specifically North Florida, should be pursued.

¹²⁰ Eric Romich, *Considerations for Utility Scale Solar Farm Land Lease Agreements*, OHIO ST. U. COMMUNITY DEV. (Feb. 23, 2017, 10:33 AM), <https://u.osu.edu/extensioncd/2017/02/23/considerations-for-utility-scale-solar-farm-land-lease-agreements/comment-page-1/>.