

Volume 4 Issue 2
February 2022



Climate Smart
Communities
Certified Bronze

New Paltz Climate Smart Newsletter

New Paltz Climate Change Solutions *Meetup:* Designing Climate Smart Municipal Buildings

Our next Meetup is right around the corner – on Tuesday February 1st at 6:00 we will have a very informative Meetup on creating energy efficient municipal buildings. The presentation by Rick Alfandre from Alfandre Architecture will focus on sustainable design and green building. We will learn more about the design details of our new New Paltz Fire Station and Police Station through our normal format of a 30-45 minutes presentation and then 30-45 minutes of Q&A. This presentation on creating energy efficient Municipal buildings should be of interest to all New Paltz residents but also municipalities anywhere who desire to lower the greenhouse gas footprint of their municipal buildings while also saving taxpayers money through long term energy savings.

The 16,000 square foot fire station replaces the fire department's current facility located at 25 Plattekill Avenue and will have an emphasis on safety and energy efficiency. High-efficiency heating and cooling are provided using a VRF (Variable Refrigerant Flow) Heat pump system. The Apparatus Bay has radiant flooring heat and the remainder of the building has multiple zones of space conditioning. Ventilation is provided by the use of an ERV (Energy Recovery Ventilation) system to provide fresh air throughout the building. The roof structure is oriented to allow for a large array of solar panels if the Village wants to install a solar system in the future. The building obtains its power supply through renewable electric resources, so does not require the use of fossil fuels for daily operations.

While the Fire Station was a clean slate effort, the Police Station was a deep retrofit of an existing building and that presents a different set of design challenges that Rick will outline for during this compelling Meetup. The facility achieves its ultra-low energy use through the thoughtful coordination of multiple building systems, including increased insulation and air tightness, energy efficient utilities and state-



With a focus on air quality and energy efficiency, Alfandre Architecture has designed a new 2-story municipal facility within an existing pre-engineered metal building at 59 N. Putt Corner Road in New Paltz. The 16,800 SF building will house the Town of New Paltz Police Station, Courthouse, Court Offices and provide public meeting space.

of-the-art HVAC systems. Increasing the overall insulation and airtightness of the former warehouse building was a priority to guarantee overall energy efficiency.

Water use is decreased by the installation of low-flow fixtures throughout the building. Low-flow fixtures are designed to save water and energy over conventional fixtures by using fewer gallons of water per minute. Electrical use is reduced by the installation of LED lighting fixtures throughout the facility. LED lights consume 80-90% less energy than incandescent bulbs, emit less heat, produce more light, have a longer life, and are more durable. Additionally, occupancy sensors have been installed on each light switch to reduce the amount of energy that is used.

Using two separate fans and duct systems, the [Energy Recovery Ventilator \(ERV\)](#) draws fresh, clean air into the building and removes stale indoor air. A heat exchanger pre-heats (or pre-cools – dependent on the season) the incoming fresh air by transferring the energy between the air streams. In addition to retaining the temperature of the indoor environment, the ERV captures contaminants, pollutants, allergens and pollen; providing energy-efficient, healthy indoor air.

A [Variable Air Volume \(VAV\) system](#) is used throughout the building as well, modulating the temperature for each room. This system enables energy-efficient HVAC system distribution by optimizing the amount and temperature of distributed air. Occupancy sensors for HVAC functions have been installed so that heating and cooling occur when needed. Unlike other air distribution systems, VAV systems use flow control to efficiently condition each building zone.

To learn more, attend this Meetup on Tuesday, February 1st at 6:00 pm.

The Zoom link is

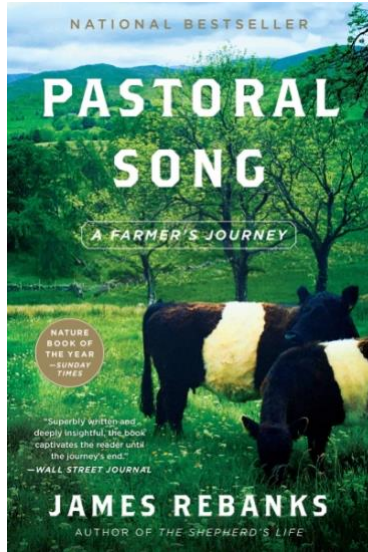
here: <https://us06web.zoom.us/j/84363953197?pwd=SWJ2S1BDcnJmdjhRdTdXb1RDVFcU9>



A Safer, Energy Efficient, Fossil Fuel Free Fire Station for the Community

Climate Smart Book Club February Book Pick

Pastoral Song: A Farmer's Journey by James Rebanks



Members of the Climate Smart Book Club have chosen *Pastoral Song: A Farmer's Journey* as their read for February. It is the acclaimed chronicle of the regeneration of one family's traditional English farm. It is a National Best Seller, Winner of the Wainwright Prize for Nature Writing, named "Nature Book of the Year" by the Sunday Times, the New York Times Editors' Choice, cited as "A BEST BOOK OF THE YEAR" by Sunday Times, Financial Times, New Statesman, Independent, Telegraph, Observer, and Daily Mail.

The New York Times best-selling author of *The Shepherd's Life* profiles his family's farm across three generations, revealing through this intimate lens the profound global transformation of agriculture and of the human relationship to the land. As a boy, James Rebanks's grandfather taught him to work the land the old way. Their family farm in England's Lake District hills was part

of an ancient agricultural landscape: a patchwork of crops and meadows, of pastures grazed with livestock, and hedgerows teeming with wildlife. And yet, by the time James inherited the farm, it was barely recognizable. The men and women had vanished from the fields; the old stone barns had crumbled; the skies had emptied of birds and their wind-blown song.

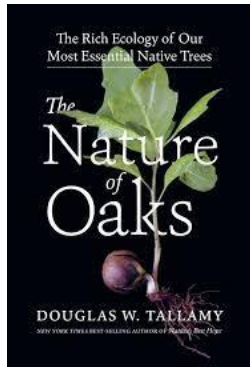
Hailed as "a brilliant, beautiful book" by the Sunday Times (London), *Pastoral Song* (published in the United Kingdom under the title *English Pastoral*) is the story of an inheritance: one that affects us all. It tells of how rural landscapes around the world were brought close to collapse, and the age-old rhythms of work, weather, community, and wild things were lost. And yet this elegy from the northern fells is also a song of hope: of how, guided by the past, one farmer began to salvage a tiny corner of England that was now his, doing his best to restore the life that had vanished and to leave a legacy for the future.

This is a book about what it means to have love and pride in a place, and how, against all the odds, it may still be possible to build a new pastoral: not a utopia, but somewhere decent for us all.

Join us for a discussion of this book on Tuesday February 15th beginning at 7:00 pm. We are meeting on Zoom and you will find the link [here](#).

Our Climate Smart Book Club is a part of the *Meetup* platform. You can sign up [here](#) and get all our Book Club notifications and also explore previous books we have read.

Looking ahead to March 15th, we have selected the book *After Cooling: On Freon, Global Warming, the Terrible Cost of Comfort* by Eric Dean Wilson



Lessons learned from *The Nature of Oaks: The Rich Ecology of Our Most Essential Native Trees* by Douglas Tallamy

The Climate Smart Book Club discussed *The Nature of Oaks* by Douglas Tallamy last month and we really enjoyed the book. We each learned things we never knew before and I think all were inspired to plant oak trees! We learned that there are huge differences in insect productivity among native plants. The number of caterpillars hosted by North American native plants varies in any one location from well over 500 caterpillar species (oaks) to no caterpillars at all (yellowwoods). In most locations in the United States, oaks, cherries, willows, birches, hickories, pines, and maples are producing the vast number and types of insects that support animal populations. These tree genera are keystone plants because they play the same support role that the keystone in a Roman Arch plays. If you have an oak or black cherry or black willow in your yard, there will be enough insect food for at least a few birds to reproduce but a yard without keystone plants will fall far short of the insect abundance necessary to sustain viable food webs even if dozens of native plant genera are present. Our takeaway was that every yard should try to be sure it has keystone trees. In the authors home county in Pennsylvania 511 species of moths and butterflies develop on oaks- nearly 100 more species than their closest competitors, the native cherries. “No other tree genus supports so much life. There is nothing unusual about my county, either; oaks are top life support trees in 84% of the counties in North America, which is just about every county in which they occur.”

After reading this book in our Climate Smart Book Club, I added a pack of 25 oak seedlings to my order from the [DEC Saratoga Tree Nursery](#). You have until May 13th to order and I just checked availability: they have both red oak and bear oak still available. These seedlings are an excellent value and we learned from the last chapter of Tallamy’s book that planting acorns or small bareroot seedlings is a much better option than an expensive root bound tree in a pot. Planting trees, and specifically oak trees, isn’t just climate smart because they sequester carbon but they help support the entire ecosystem!

The Climate Smart Tiffin Project Continues to Expand

Tiffins are made of stainless steel, reusable 1000’s of times, and easily washed in a dishwasher. They are the perfect way to reduce your use of single use! Our Tiffin Project is a direct outgrowth of trying to reduce waste through the reuse of a container for take-out from restaurants. **To make arrangements to buy a tiffin at our cost of \$15, contact Jim O’Dowd via his email: jimmyodowd@yahoo.com** We have now gone through four wholesale orders of these tiffins!

Will you help us further promote the New Paltz Tiffin Project? Please contact Janelle if you would like to help with this project by emailing newpaltzclimatesmart@gmail.com.



Solar At The Landfill Update

The New Paltz Ad-hoc Solar Committee has been working for several years to create a workable project that puts solar panels on the landfill at Clearwater Rd. At the end of 2021 the Town of New Paltz signed a lease contract with Sunlight General, a New York based solar developer founded in 2009 and with more than 300 solar projects in their portfolio, and the committee had their first planning meeting with them recently. "SunLight is proud to use its local area expertise to serve the Town of New Paltz for this community solar project at the Town's landfill", said James Pochez, director of project development at SunLight. "This project will provide clean, renewable electricity with electricity cost savings to the community, and will do so over under-utilized property."



Recent site visit with SunLight General and Solar Generation at the Town of New Paltz landfill.

Sunlight is working with Solar Generation, a local solar installation contractor based out of Kingston. "Our team at Solar Generation is excited to partner up with SunLight and the Town of New Paltz on this project", said Zachary Schrowang, chief operating officer at Solar Generation. "We have a successful history of working with SunLight and building solar projects in the area, and we look forward to providing our experience for this impactful project". A workshop meeting has been requested with the planning board in February to get the Board up to speed on the project. The project is eligible for subsidies from NYSERDA, including additional incentives for landfill solar projects.

This project will be entered into New York's Community Distributed Generation program, and the electricity will be available for any local electricity user that wishes to subscribe. The project will help reduce the carbon footprint of up to 2,000 households and offer them 10% savings on their bill. This is a unique opportunity for local residents who, for any number of reasons, might otherwise not be able to install solar directly on their property.

An interesting aspect of this project is that SUNY and Walden engineers and scientists have conducted a field study of the Town Solar PV Site and nearby areas to assess the baseline wildlife communities living on the existing capped landfill and woodland habitats using birds and insects as indicator species. The findings will guide the Walden engineer's desktop study of wildlife-friendly PV solar design elements and approaches to reduce impact on wildlife or perhaps even improve habitat conditions. Scientists will then return to the site areas after the PV System is constructed and operating to repeat the field study and quantify any changes in the bird and insect communities that may be due to the installation. The project is limited to the scale, layout and size of the eventual project to move forward and the existing characteristics of the site. However, the process and procedures of the assessment and inventory steps, design methods and sample products will have utility throughout New York. This study will be a valuable contribution to understanding what impact, if any, small scale solar installations may have, and may help improve standard practices for solar.

New Paltz Climate Smart February Calendar

Tuesday, February 1st at 6:00 pm Climate Solutions Meetup – Designing Climate Smart Municipal Buildings [Link to Zoom Meetup](#)

Monday February 14th at 7:00 pm monthly Climate Smart Task Force meeting
[Link to Zoom Meeting of Task Force](#)

Tuesday February 15th at 7:00 pm Climate Smart Book Club: Pastoral Song: A Farmer's Journey [Link to Climate Smart Book Club](#)

If you have any questions about anything in this newsletter, please contact Janelle Peotter, Climate Smart Coordinator at newpaltzclimatesmart@gmail.com



[Follow us on Facebook](#)



[Follow us on Instagram](#)