

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

Do you want to know what local environmental ecological and climate events (on-line and in person) have been scheduled for Grey, Bruce and environs?

They're listed and described at Grey Bruce Climate Action's event listing:
<https://greybruceclimateaction.ca/events>,
where you can also add your own organization's upcoming events.

GREY HIGHLANDS INKS PROVISIONAL DEAL TO SELL BEAVER VALLEY LANDS TO INVESTMENT FIRM: BACKLASH ERUPTS

The Municipality of Grey Highlands' Council has announced the conditional sale of Municipally-owned lands in the Beaver Valley to Westway Capital, subject to a "due diligence period". Westway intends to work with a resort developer to create a high-end resort on the property which was once the site of Talisman, a ski resort and golf course.

The Municipality announced that, during the due diligence period, the Westway development team:

"will be meeting regularly with representatives from Grey Highlands Council and staff to help align future development with the community vision for the entire Beaver Valley corridor. During this process, the Municipality will be encouraging opportunities for collaborative undertakings between the developers and the community groups who have expressed interest in the future of the identified lands."

The announcement by Grey Highlands describes the benefits it expects from the sale, in a way that highlights the "playground", built-world, money-making and tax-generating aspects, with no mention of the environmental dimensions and opportunities inherent in the land:

"The sale of these Municipally-owned properties will cultivate the use of land already designated for development; explore the tourism and recreational development potential of the lands; optimize the use of existing and planned infrastructure, including increasing usage on the existing water system; generate opportunities for significant direct and indirect employment; generate annual property tax revenue for the benefit of all residents in the Municipality; and support long-term economic development and destination development and management".

Community reaction to the surprise deal negotiated behind closed doors has run from disappointment to outrage, in part because of the secrecy of the dealings and in part because the Municipality had virtually ignored an environmentally conscious community group that had mobilized several months ago to provide Grey Highlands with a proposal for use of that land, other than selling it to private developers.

Spearheaded by a group called the Friends of the Beaver Valley, an alliance of four organizations had come together, raised money and recruited volunteers possessing a range of business, community development and environmental talents to develop a proposal for use of the lands – a proposal that would focus on preserving and enhancing the ecological integrity of the lands and of the entire Beaver Valley.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

The alliance asked Grey Highlands for a three month period to finalize its proposal before the Municipality decided on disposition of the Valley land, but it received no response to its request. Nevertheless, the Escarpment Biosphere Conservancy in partnership with the Friends of the Beaver Valley is taking the lead in drafting an offer to buy the land from the Municipality.

Anger at the Municipal decision has been compounded by the secrecy surrounding the Council's deliberations – a secrecy that Municipal officials say is required by rules governing the Municipality when it is involved in land negotiations. Said Grey Highlands CAO Karen Govan in response to a request for the names of councillors who voted for and against the sale: *“As the sale is still conditional, the vote was in closed session so there is no public record until the conditions are removed and the sale becomes final.”* The assurance that a final vote will be in open session seems scant solace to citizens mobilizing in the here-and-now to oppose the sale.

Those favoring the development and adoption of an environment-focused alternative to the Westway deal are encouraging Grey Highlanders to write to members of the Grey Highlands Council voicing their opposition (whether one opposes or supports the town's actions, one can send a message on the issue to all members of Council via the Municipality's web page at <https://www.greghighlands.ca/en/municipal-government/council-and-committees.aspx>).

In its announcement of the provisional sale, the town tried to assure environmentalists that environmental aspects are important and that their voices would be heard. Said the announcement:

“The sale of the Municipally-owned lands is intended to catalyze and revitalize the area through potential development incorporating health and wellness principles and ensuring the integrity of the surrounding environmental and ecological lands that are fundamental to the fabric of the community, and the entire Beaver Valley corridor” (a statement that avoids saying the Municipally owned lands are fundamental environmental and ecological lands).

The announcement also says the town would be *“encouraging opportunities for collaborative undertakings between the developers and the community groups who have expressed interest in the future of the identified lands”* (a statement that avoids saying that those interested community groups are environmentally focused). Opponents of the sale are unlikely to be swayed by the assurance that Grey Highlands offers mere “encouragement” of their involvement. A comment from CAO Karen Govan to *Collingwood Today* made clear the secondary nature of the role environmental groups would play: *“Govan explained that [encouragement] would be done through regular meetings between council representatives, Grey Highlands staff and the team from Westway”* (in short, the town and Westway would talk about the role of environmental groups, without those groups at the table).

Over these developments looms a series of questions posed by one critic of the deal with Westway, in her letter to Council:

“How many offers for the municipal lands were provided? What was the process for evaluating these offers? What were the evaluation criteria? Why was Westway chosen over citizen initiatives? What was the vote on proceeding with this sale? Which councillors voted against, if any? What are the results of the Beaver Valley Visioning Process? Is the final report available? And if so, when did council consider this report? If not, why did Council proceed with the sale when the results of this process are not yet available? When does the ‘due diligence’ period for the conditional sale end?”

Updates on the issue can be found on the *Love the Beaver Valley* Facebook page at <https://www.facebook.com/groups/lovethebeavervalley>.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

GREY COUNTY ISSUES DRAFT CLIMATE CHANGE ACTION PLAN, HIRES CLIMATE CHANGE MANAGER

After extensive preparatory work in 2020 and this year, Grey County has issued its draft five-year Climate Change Action Plan (CCAP), prepared by the consulting firm ICLEI Canada and available at <https://www.grey.ca/programs-initiatives/climate-change-action-plan>.

The plan focuses largely on climate change **mitigation** (measures that help reverse the effects of climate change and prevent further contributions to climate change). It does, however, address one major element in climate change **adaptation** – the protection of waterways and shorelines – while pointing out that:

“Grey County’s next priority will be to work with our member municipalities and the community to develop a comprehensive climate change adaptation plan, that identifies our specific vulnerabilities to the impacts of climate change and outlines programs, policies, and projects that will help us reduce our risks and increase our resilience in the face of a climate-adjusted future.”

The Plan focuses on 25 community strategies, and 14 “corporate” strategies to be undertaken by County government. The 25 community strategies are organized under seven themes:

- buildings
- transportation
- waste
- agriculture.
- land-use planning
- renewable energy
- protection of waterways and shorelines

The 14 corporate strategies are organized under four themes:

- vehicle fleet
- waste
- stationary energy (buildings and outdoor lighting)
- Grey County’s corporate culture.

The Plan concludes with a commitment to collaboration and engagement:

“Continuous community collaboration and engagement will be essential to building and carrying forward the momentum of the CCAP so that its impacts go well beyond the 5-year plan period. Additional efforts will be needed to engage the wider community outside of the community climate and sustainability leaders, and it will be important to report on progress and share success stories regularly to demonstrate co-benefits and emerging business opportunities to the community.”

Grey County invites comments on the draft Climate Change Action Plan via e-mail to its Planning Department at planning@grey.ca. Climate action groups in Grey County are likely to comment on the draft Plan over the next few months.

To move its climate action forward, Grey County has appointed Linda Swanston as its first Manager of Climate Change Initiatives. Swanston will lead the work of finalizing and implementing the County’s Climate Change Action Plan. She will bring together County departments, local municipalities, other key collaborators and the community at large. Swanston’s most recent position was with the City of Toronto as Manager of Policy and Research in the Environment and Energy Division where she developed and oversaw the implementation of Toronto’s Climate Change Action Plan, branded as TransformTO.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

GREY HIGHLANDS NATURAL BURIAL: "IN THE PUBLIC INTEREST" – BLUE MOUNTAINS INTERESTED TOO

On June 16 Grey Highlands Council reviewed an updated staff report, including comments received, on a natural burial proposal in Grey Highlands. It decided that the addition of a natural burial site in the municipality would be in the public interest if all regulatory approvals have been obtained and it granted approval in principle pending permits and approvals from conservation authorities, the Niagara Escarpment Commission and the Bereavement Authority of Ontario.

Folks in the adjacent Town of the Blue Mountains are proposing a natural burial site too. On July 14 Diana Dolmer, Chair of the local citizens' group Climate Action Now Network (CANN), presented a proposal for a natural burial site at the municipally operated Thornbury Clarksburg Union Cemetery to the Municipality's Sustainability Advisory Committee. Susan Greer, Executive Director of Ontario's Natural Burial Association was present to answer questions. The group's written presentation said:

"If a few acres of natural burial ground were created within the Thornbury Clarksburg Union cemetery, what would you like to see? It could have pollinator gardens, trails, bee hives, trees, meadow, sculpture and so much ore. Let your imagination carry you away!"

On August 24, Diana Dolmer, Rosemary Gosselin and Roland Gosselin from CANN will form a deputation to support the natural burial proposal at the municipality's Committee of the Whole.

Demand for natural burial grounds is growing worldwide, with over 300 sites in the U.S. and U.K.

ANOTHER BURIAL ALTERNATIVE: NATURAL ORGANIC REDUCTION

An alternative to burial is making inroads in the U.S., but not without controversy. The process, called natural organic reduction, was introduced by the Seattle-based company Recompose. The process involves placing the body in a reusable vessel, covering it with wood chips, alfalfa and straw and aerating it to create an environment for microbes and essential bacteria. The body is fully transformed into soil in about 30 days (see <https://recompose.life/our-model/#the-process>). The material is blended at several points during the process to ensure thorough aeration and decomposition. Everything – including bones and teeth – transforms. Each body creates one cubic yard of soil amendment, which is removed from the vessel and allowed to cure. The process is seen as more sustainable than cremation, which requires fossil fuels and releases carbon dioxide. Proponents say families can use the soil to plant a tree or a garden to honor their loved ones. The U.S. states of Washington, Colorado and Oregon have legalized the process of converting human bodies into soil, and California and New York are considering legalizing it.

However, legislation legalizing human composting has encountered religious resistance from the Roman Catholic Church. The Colorado Catholic Conference opposes it, saying the church "teaches that the human body is sacred and the dignity of the human person is the foundation of a moral society." Joseph Sprague, executive director of the Washington State Catholic Conference, wrote that "disposing human remains in such manner fails to show enough respect for the body of the deceased" and the New York State Catholic Conference said

"While not everyone shares the same beliefs with regard to the reverent and respectful treatment of human remains, we believe there are a great many New Yorkers who would be uncomfortable at best with this proposed composting/fertilizing method, which is more appropriate for vegetable trimmings and eggshells than for human bodies."

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

The California Catholic Conference came out against the proposed measure last year, saying *“We believe that the ‘transformation’ of the remains would create an emotional distance rather than a reverence for them.”*

One could make the argument, however, that returning the nutrients from a body to the natural world, thereby sequestering carbon and nourishing new life, is dignified, respectful and profoundly reverent, if done in accordance with the wishes of the deceased.

GIZMO CORNER: COLLINGWOOD SUCKS UP PLASTIC CRAP

In early July the Town of Collingwood announced it has partnered with Georgian Bay Forever (a charity dedicated to scientific research and public education on Georgian Bay's aquatic ecosystem) to install 11 litter trapping devices, using two different technologies – three seabins and eight gutter bins – that collect litter such as plastic that would end up polluting the water. The litter will be analyzed to provide data so action can be taken to stop the most major litter types at their source. Said Collingwood's media release:

“Plastic pollution is a real risk to Collingwood shorelines. Not only is this litter ugly to look at in our water and on our shorelines, but plastic does not biodegrade – it just breaks down into smaller and micro pieces that persist in the environment and are a risk to wildlife through ingestion.”

The three seabins are floating trash bins that collect floating debris and microplastics as small as 2 millimetres. One seabin can collect up to 3.9 kilograms of debris in a day.

The eight gutter bins will capture pollutants and organic materials 6 mm. and larger at storm drain openings in a specially designed “Mundus Bag.” When it rains, water that includes litter/pollutants from residential and street surfaces runs into the gutter and into drains on streets that outflow into bodies of water like Georgian Bay. The Mundus Bag captures run-off materials until the bag is full, but still allows water to drain through so there is no flooding. Collingwood is Canada's first municipality to pilot and use gutter bins.

Says Georgian Bay Forever's web site:

“These devices [seabins and gutter bins] are not a complete solution to littering. They will capture a really important amount that volunteers can't get, but not nearly enough to capture the 22 million pounds of plastic that are estimated to enter the Great Lakes every year. What adds to the value of these technologies is our ability to sort through their 'catch' and record the amounts and type of litter that is found. In 2020, Georgian Bay Forever joined the Great Lakes Plastic Cleanup (GLPC), a huge initiative to broaden the dispersal of these technologies and to bring together analysis of the litter they are collecting.”

A video of how seabins work is on YouTube at <https://www.youtube.com/watch?v=4nago80P3js>.

MEAFORD TO RECYCLE STYROFOAM

Meaford Council recently heard a deputation from Simona Freibergova of Transition Meaford, who outlined a residential expanded polystyrene (Styrofoam) recycling program. The Council approved a one-year pilot project to work with Transition Meaford and Second Wind, a company that compresses Styrofoam to facilitate its use in other products. This Styrofoam project will divert this material from landfill and not simply recycle it, but re-purpose it. The cost, just over Cn\$7,000, will come from Meaford's Waste Management Reserve Fund. If the pilot is successful, municipal staff will likely recommend a permanent program. Styrofoam drop off (no charge) will be at 87 Stewart Street. Meaford, from 9:00 a.m. until noon the first Saturday of every month.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

BRUCE POWER ISSUES SUSTAINABILITY REPORT

In 2020, Bruce Power formed its Environment and Sustainability Oversight Committee, comprising five senior level executives, to foster environmental and social governance (ESG) within this private sector energy company (known mainly for its nuclear plant in Bruce County). The company has now issued its 42-page *Sustainability Report 2021*, available at

https://www.brucepower.com/wp-content/uploads/2021/06/210009A_SustainabilityReport_R001.pdf?fbclid=IwAR0pWJMipSbVgjiQqPDBzt00R3zYE6li8ZN300F0oo4VK6HGhXyJbQzi_Z4

The report focuses on disclosing performance data for 22 key performance indicators and targets that comprise Bruce Power's approach to ESG. Says the report's executive summary:

"To support the fight against climate change, Bruce Power is taking steps to ensure it minimizes and offsets emissions to achieve Net Zero status by 2027. Bruce Power's commitment to achieving net zero greenhouse gas (GHG) emissions will account for all direct and indirect emissions that occur from sources that are owned or controlled by the company. In 2021 we have set a target of 5 per cent reduction of 2019 baseline. This commitment will solidify our leadership role in reducing emissions in Ontario. Previously we've provided 70 per cent of the electricity Ontario needed to shut down its coal plants (accomplished in 2014)."

HIGHWAY OF HEROES TREE CAMPAIGN + FORESTS ONTARIO = 880,000 TREES

More than 880,000 new trees have been planted across Ontario this spring in honor of Canadian veterans, thanks to the combined efforts of the Highway of Heroes (HOH) Tree Campaign and Forests Ontario. These seedlings add to an existing green monument along Canada's busiest highway.

The HOH Tree Campaign honors veterans by planting a tree for each of the two million Canadians that served in Canada's Armed Forces. The HOH/Forests Ontario partnership reduces tree planting costs for eligible landowners living near Highway 401, from Windsor to Cornwall, to meet this goal.

Said Mike Hurley, Executive Director the HOH Tree Campaign

"Our partnership with Forests Ontario and the 50 Million Tree Program has allowed us to take immense strides toward reaching our goal of supporting the planting of 2 million trees in total. In just two years, we have gone from having less than 10% of our goal planted to just over 75%. But perhaps what is most meaningful is that many Canadians can now take great pride in knowing that they have a small piece of this sprawling living tribute in their own backyards."

Along with enhancing the world's largest living tribute, the new forests planted along Highway 401 will provide wind and snow barriers, stabilize soil, absorb groundwater runoff, sequester carbon, and provide new habitats for wildlife.

Having rooted nearly 1.6 million trees and created over 700 hectares of new forest in total, the HOH Campaign is poised to be completed by the end of 2022. Forests Ontario, a non-profit charity, has facilitated the planting of more than 37 million trees across Canada since 2004.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

ONTARIO NATURE PROPOSES GREENBELT PRIORITIES

In the wake of an impending announcement by Ontario's Ministry of Municipal Affairs and Housing about expanding the Greenbelt adjacent to southern Ontario's Greater Golden Horseshoe, the environment protection charity Ontario Nature has proposed that Greenbelt expansion focus on protecting these areas of high ecological and hydrological value that are under threat from urban development:

- all moraines within the Greater Golden Horseshoe, given their vital role in providing clean drinking water and mitigating floods
- private lands within urban river valleys, since it is primarily private lands, not public lands, that are threatened with urbanization and development
- coldwater streams, wetlands and headwaters of river systems that improve water quality, provide critical habitat for fish and other wildlife, and provide flood control, carbon storage, groundwater recharge and recreational opportunities
- former glacial Lake Algonquin and Iroquois shorelines and plain which feature significant groundwater discharge zones and the headwaters of many coldwater streams
- the Lake Simcoe basin and northern Simcoe County, where many important ecological and hydrological features are vulnerable to land speculation and intensive development.

Ontario Nature is also asking the government to cancel plans to build Highway 413 (GTA West) and the Bradford Bypass (Holland Marsh Highway) which will slice through existing Greenbelt lands and accelerate sprawl. Says Ontario Nature in arguing for a much expanded Greenbelt:

"A much more ambitious approach is needed to protect precious farmland, groundwater and natural areas across the Greater Golden Horseshoe (GGH) and build the region's resilience to climate change... Permanently protecting lands and waters within the Greenbelt will maintain and improve the resiliency of local food systems, and the physical, social and economic health of the nine million Ontarians living in the GGH. Healthy ecosystems are the foundation of human prosperity and will become increasingly important for building climate resilience."

As a Greenbelt addition, on June 16 Steve Clark, Ontario's Minister of Municipal Affairs and Housing, announced the Ministry has added 360 hectares of privately owned lands, currently slated for development, to the Lake Simcoe Region Conservation Authority, to protect environmentally sensitive wetlands in Georgina's North Gwillimbury Forest. In that announcement the Minister also made a commitment to add two acres of protected and enhanced green space for every acre of land developed through the use of a Minister's Zoning Order (MZO), and to increase the size of the Greenbelt this winter.

Critics of the Ontario Government's use of MZOs to deliver ecologically sensitive lands into the hands of developers might argue that the Minister's two-acres-for-one promise is a shell game if the Ontario Government delivers up the most ecologically sensitive land to developers while only adding marginally sensitive land to the Greenbelt – not all acres are equal.

ONTARIO INVESTS TO PROTECT AND RESTORE THE GREAT LAKES

On July 19 Ontario's Ministry of the Environment Conservation and Parks announced it has selected 44 community-based projects to receive Cn\$1.9 million through the Great Lakes Local Action Fund, which supports local projects that protect and restore the Great Lakes.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

Several of the projects relate to the Lake Huron / Georgian Bay area:

- **Bagida'waad Alliance** received \$50,000 for its “Ziibiins Revitalization - Little Port Creek in Neyaashiinigiing” project, involving shoreline cleanup, restoration and water quality improvements through engaging the local Indigenous community in Little Port Creek in Neyaashiinigiing (Chippewa of the Newash First Nation). Community members will also engage in water monitoring activities and learning about the native plants along the shoreline.
- **Environment Network** received \$49,520 for its “Sunset Point Eco-Shoreline” project (Collingwood) that will apply and study the technique of anchoring large woody debris used in coastal protection to stabilize the Georgian Bay shoreline from the impacts of high water levels and bigger waves.
- **Georgian Bay Forever** received \$49,715 for its “Georgian Bay Plastics Free” project that involves removing plastics from Georgian Bay shorelines and using analysis of collected plastics to educate the public and businesses on the challenges of plastic in the environment (see article earlier in this edition: *Gizmo Corner: Collingwood Sucks Up Plastic Crap.*)

B.C. TO CREATE CLEAN ENERGY CENTRE

The Government of British Columbia, the Government of Canada and Shell Canada are each committing funding toward a new B.C. Centre for Innovation and Clean Energy, to be launched this fall. The B.C. Government and Shell Canada have each committed Cn\$35 million to the centre that will leverage additional public and private-sector investments and participation.

The Government of Canada has committed up to Cn\$35 million for the centre’s innovative projects. Said B. C. Premier John Horgan:

“Climate change is the greatest challenge of our time, and we are already seeing its devastating effects. Shifting from our reliance on fossil fuels to low-carbon energy requires an all-hands-on-deck approach. That’s why we are working together with industry and government partners to create a centre for innovation and clean energy that will build on B.C.’s strengths as a climate leader. By supporting new technologies, we will stimulate investment and create the good jobs of the future.”

The B.C. Government’s media release on the project says the Centre’s initial focus areas for funding and project delivery will include:

- carbon capture, utilization and storage
- the production, use and distribution of low-carbon hydrogen
- biofuels and synthetic fuels (including marine and aviation fuels)
- renewable natural gas
- battery technology, storage and energy management systems.

Some climate activists are skeptical about any initiative that has a fossil fuel company as a major partner. It may well be that Shell hopes to carve out a role for itself in providing a less dirty version of fossil fuel for use in areas it considers hard to decarbonize.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

SUZUKI FOUNDATION: HOW TO MOBILIZE LOCAL GOVERNMENT CLIMATE ACTION

The David Suzuki Foundation has issued ***Your Voice at the Table: a Guide to Mobilizing Local Government Climate Action***. Says the Foundation:

“This guide will give you:

- *an understanding of climate change and greenhouse gas emissions, which will help you speak knowledgeably to your elected officials*
- *tools to assess the effectiveness of your local government’s climate plan*
- *an understanding of how local governments operate and how you can work with them*
- *ways to connect with like-minded climate advocates in your community*
- *inspiring stories from people throughout Canada who’ve worked with their governments on climate action.*

You don’t need to be a climate scientist or a policy expert... You just have to care about the future of your community and be willing to collaborate and learn.”

The Guide provides its insights under six headings:

- Understand emissions in Canada
- Envision the future for your community
- Explore top solutions for decreasing emissions
- Learn about climate action plans
- Assess your municipality’s climate plan
- Work with your local government on climate action

The Guide is at <https://davidsuzuki.org/what-you-can-do/your-voice-at-the-table-guide-to-mobilizing-local-government-climate-action/>.

U.N. ISSUES DRAFT BIODIVERSITY FRAMEWORK

Scientific studies predict that on the world’s current trajectory of habitat loss and global warming, between one third and one half of all species will face extinction by the end of this century. Their disappearance will upend ecosystems and destabilize human civilization. The United Nations plans to do something about it.

On July 12 the U.N. Convention on Biological Diversity (CBD) Secretariat released its draft Global Biodiversity Framework to guide actions worldwide through 2030 to preserve and protect nature and its essential services to people. The framework includes 21 targets for 2030 that call for, among other things:

- at least 30% of land and sea areas globally (especially areas of particular importance for biodiversity and its contributions to people) conserved through effective, equitably managed, ecologically representative and well-connected systems of protected areas (and other effective area-based conservation measures)
- a 50% or greater reduction in the rate of introduction of invasive alien species, and controls or eradication of such species to eliminate or reduce their impacts
- reducing nutrients lost to the environment by at least half, and pesticides by at least two thirds, and eliminating the discharge of plastic waste
- nature-based contributions to global climate change mitigation efforts of least 10 billion tonnes of CO₂ equivalent per year, and that all mitigation and adaptation efforts avoid negative impacts on biodiversity
- redirecting, repurposing, reforming or eliminating incentives harmful for biodiversity, in a just and equitable way, reducing them by at least us\$500 billion per year
- a us\$200 billion increase in international financial flows from all sources to developing countries.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

The Framework will be refined over the summer before it is presented for consideration at CBD's next meeting of its 196 parties at COP-15 (the fifteenth meeting of the Conference of the Parties to the CBD) in Kunming, China in October. The draft is at <https://www.cbd.int/doc/c/abb5/591f/2e46096d3f0330b08ce87a45/wg2020-03-03-en.pdf>.

STUDY: CRYOSPHERE KEEPS SHRINKING

The global cryosphere – all of the areas with frozen water on Earth – shrank by about 87,000 square kilometers (about 33,000 square miles), an area about the size of Lake Superior, per year on average, between 1979 and 2016 as a result of climate change, according to a new study. This research is the first to make a global estimate of the surface area of the Earth covered by sea ice, snow cover and frozen ground. The new study, entitled *A Holistic Assessment of 1979–2016 Global Cryospheric Extent*, is published in *Earth's Future*, the American Geophysical Union's journal for interdisciplinary research, and is at <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2020EF001969>.

The extent of land covered by frozen water is just as important as its mass because the bright white surface reflects sunlight so effectively, cooling the planet. Changes in the size or location of ice and snow can alter air temperatures, change the sea level and affect ocean currents worldwide.

Said first author Xiaoqing Peng, a physical geographer at Lanzhou University:

"The cryosphere is one of the most sensitive climate indicators and the first one to demonstrate a changing world. Its change in size represents a major global change, rather than a regional or local issue."

The cryosphere holds almost three-quarters of Earth's fresh water, and in some mountainous regions, dwindling glaciers threaten drinking water supplies. Many scientists have documented shrinking ice sheets, dwindling snow cover and loss of Arctic sea ice due to climate change. But no previous study has considered the entire extent of the cryosphere over Earth's surface and its response to warming temperatures.

The shrinkage primarily occurred in the Northern Hemisphere, with a loss of about 102,000 square kilometres (about 39,300 square miles), or about half the size of Kansas, each year. Those losses are offset slightly by growth in the Southern Hemisphere, where the cryosphere expanded by about 14,000 square kilometers (5,400 square miles) annually. This growth mainly occurred in the sea ice in the Ross Sea around Antarctica, likely due to patterns of wind and ocean currents and the addition of cold meltwater from Antarctic ice sheets.

The estimates showed that not only was the global cryosphere shrinking but that many regions remained frozen for less time. The average first day of freezing now occurs about 3.6 days later than in 1979, and the ice thaws about 5.7 days earlier.

HEAT FROM UK COAL MINES

The British Geological Survey and Coal Authority have released maps that reveal for the first time the extent to which heat is stored in Britain's abandoned coal mines. According to the Coal Authority, one quarter of the UK's population live above abandoned coal mines. The mines are warmed by natural geothermal processes and where the mines are flooded, they are now being developed as a source of low carbon energy to heat homes and businesses.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

The UK government has a target to increase the number of homes on heat networks from 2% to 18% by 2050. It says that geothermal energy from mines, combined with heat pump technology, could provide a sustainable energy source for these networks that is both local and low cost. Technical specialists at the Coal Authority say there is potential to kick-start a new renewable industry, creating employment, tackling climate change and attracting investment to the coalfield communities previously disadvantaged by mine closings.

Heating accounts for 44% of energy use in the UK and 32% of its air pollution. It's ironic that mining coal, a fossil fuel, would provide access to a low carbon, clean air, energy source that will last far longer than the 200 years of intensive mining that created this opportunity.

A UK Government media release on the issue is at <https://www.gov.uk/government/news/new-maps-reveal-heat-stored-in-britains-abandoned-coal-mines>.

CALIFORNIA NIXES OLD GROWTH LUMBER: CANADA PROTESTS

A bill working its way through California's legislative system has riled Canada. The bill would require forest products bought by the state to have been harvested with the free, prior and informed consent of Indigenous communities, and harvesting of the products must not contribute to the degradation or deforestation of intact tropical and boreal forests. The *California Deforestation-Free Procurement Act*, introduced on February 4 by San Jose Assemblyman Ash Kalra, was co-sponsored by Friends of the Earth, the Natural Resources Defense Council, Peace 4 Animals, and Social Compassion in Legislation. Kalra says the Act "*asserts our California values and extends environmental leadership to the protection of tropical and boreal forests, sending a powerful signal to global markets that illegal and destructive commodity-driven deforestation will no longer be tolerated.*"

In an April 21 letter protesting the bill, Canadian Consul Yves Beaulieu writes, "*At a time of already record lumber costs this bill would only further raise procurement costs for the state of California and compliance costs for suppliers.*" In essence, Canada's letter is an embarrassing example of the "trust us" letters more commonly sent by businesses to governments, i.e.

- "*We are living up to the standards you require*
- *but it would cost money to prove it to you*
- *so just trust us.*"

U.S. ECONOMISTS: CARBON TAX IS ESSENTIAL

A group of American economists has mobilized to support the introduction of a carbon tax, whose revenues would be distributed to US citizens rather than being used to fund government programs, "to avoid debates over the size of government." These economists, now numbering in the hundreds, have signed an ***Economists' Statement On Carbon Dividends***, found at <https://www.econstatement.org/>. Original co-signatories include 28 Nobel Laureate economists, four former Chairs of the Federal Reserve and 15 former Chairs of the Council of Economic Advisers. This is their statement:

"Global climate change is a serious problem calling for immediate national action. Guided by sound economic principles, we are united in the following policy recommendations.

I. A carbon tax offers the most cost-effective lever to reduce carbon emissions at the scale and speed that is necessary. By correcting a well-known market failure, a carbon tax will send a powerful price signal that harnesses the invisible hand of the marketplace to steer economic actors towards a low-carbon future.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

II. A carbon tax should increase every year until emissions reductions goals are met and be revenue neutral to avoid debates over the size of government. A consistently rising carbon price will encourage technological innovation and large-scale infrastructure development. It will also accelerate the diffusion of carbon-efficient goods and services.

III. A sufficiently robust and gradually rising carbon tax will replace the need for various carbon regulations that are less efficient. Substituting a price signal for cumbersome regulations will promote economic growth and provide the regulatory certainty companies need for long-term investment in clean-energy alternatives.

IV. To prevent carbon leakage and to protect U.S. competitiveness, a border carbon adjustment system should be established. This system would enhance the competitiveness of American firms that are more energy-efficient than their global competitors. It would also create an incentive for other nations to adopt similar carbon pricing.

V. To maximize the fairness and political viability of a rising carbon tax, all the revenue should be returned directly to U.S. citizens through equal lump-sum rebates. The majority of American families, including the most vulnerable, will benefit financially by receiving more in “carbon dividends” than they pay in increased energy prices.”

UNITED NATIONS ENERGY COMPACT: UNLEASHING YOUTH

On June 25 Student Energy, New Energy Nexus, and the Government of Denmark announced the launch of the Student Energy Solutions Movement to world leaders and governments at the United Nations High-level dialogue on Energy. This new, youth-led, global Energy Compact bridges the gap between motivation and action by directly funding and actively supporting the deployment of 10,000 youth-led clean energy projects by 2030. Funding required to meet this objective is us\$10 million by December 2021, and us\$150 million by 2030, and has three “ambitions” to be achieved by 2030:

1. launch 10,000 youth-led sustainable energy projects or businesses
2. train 50,000 agile and employable youth workers, with a particular focus on reducing the energy skills gap in developing nations, and for women
3. deploy \$150 million toward upskilling, mentoring, and directly financing early- and mid-stage youth-led clean energy initiatives.

Says Asser Rasmussen Berling of Denmark’s Ministry of Climate, Energy and Utilities:

“Tackling climate change is the biggest challenge of our time and it will not be easy, but seeing the motivation, innovation, creativity, and drive that young people around the world today are showing gives me hope that we will achieve our goals. The kind of ambition demonstrated by Student Energy to support 10,000 youth-led clean energy projects by 2030 is precisely what we need in order to accelerate the energy transition... Denmark is proud to be a funding partner of this initiative.”

GREENISH BUSINESSES HOLD SUMMIT

B Corp, an organization that certifies and mobilizes businesses that meet high standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose, held a Global Climate Summit in late June. It attracted over 5,000 delegates to connect and catalyze business to help stabilize the Earth’s climate. In 2019 more than 500 B Corps committed to net zero by 2030, and now more than 1,300 businesses – B Corps and others – are committed to achieve net zero emissions by the end of this decade.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

Climate justice, which focuses on people most affected by climate change, was a key issue at the summit. As part of the opening session, Mitzi Jonelle Tan, a climate justice advocate from the Philippines, said the climate crisis is a symptom of a profit-driven system founded on oppression and injustice:

“When we talk about climate action and justice, it means recognizing that countries and people least responsible for the crisis are the ones most impacted. Check your supply and distribution chains. Beyond sustainability, look at the rights of your workers and your partners’ workers. Look at the brutality of how the materials are being extracted from our lands here in the Global South, all for the profit of the Global North. I know it’s difficult, but I did say that the system was built to be unjust.”

One of B Corps’ most recent publications is its *Climate Justice Playbook for Business* available at <https://bcorporation.net/zbtcz02z16/b-lab-and-partners-release-climate-justice-playbook-business>.

Says the B Corp website in describing the Playbook:

The playbook provides insights and guidance for business leaders seeking to understand the intersection of climate and social justice and shift to a human-centered approach to climate action. It includes insights from over 40 B Corps and deeper case studies on four – Guayakí Yerba Mate, Patagonia, Pukka Herbs, and Seventh Generation – that highlight how they are seeking to advance climate justice in their operations, supply chains, and the communities they impact so that other businesses can learn from their approaches and practices.

US CARBON CAPTURE REPORT

On June 30 the White House Council on Environmental Quality (CEQ) delivered a Carbon Capture, Utilization, and Sequestration (CCUS) report to Congress. The report identifies best practices for advancing the efficient, orderly, and responsible development of CCUS projects at increased scale. CCUS refers to technologies that remove CO₂ from emissions at their sources or from the atmosphere and permanently sequester them. According to leading scientists and experts, removing CO₂ from the air is essential to tackling the climate crisis and mitigating the most severe impacts of climate change.

Said CEQ Chair Brenda Mallory:

“To avoid the worst impacts of climate change and reach President Biden’s goal of net-zero emissions by 2050, we need to safely develop and deploy technologies that keep carbon pollution from entering the air and remove pollution from the air. The report we are releasing today outlines a framework for how the U.S. can accelerate carbon capture technologies and projects in a way that benefits all communities.”

The report is at <https://www.whitehouse.gov/wp-content/uploads/2021/06/CEQ-CCUS-Permitting-Report.pdf>.

EUROPEAN UNION ISSUES DRAFT CLIMATE LAWS

The European Commission (The European Union’s executive branch) has put forward a bundle of 13 draft laws to slash the EU’s greenhouse gas emissions by at least 55% by the end of 2030.

The draft laws include a border tax on polluting imports, a regulation to phase out fossil fuel cars, plans to increase the uptake of alternative fuels, an expansion to the current Emissions Trading System, a higher price on carbon, a social climate fund to tackle energy poverty and a new target to double the share of renewable energy over the next 10 years.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

The laws aim to make the EU the first climate neutral continent by 2050 – a commitment that is already legally-binding but requires a comprehensive practical architecture.

The draft laws must now be considered by the EU's two co-legislators, the European Parliament and the EU Council. Although interconnected, the laws must be assessed and negotiated individually until both legislators reach a final version, a process that usually takes around two years but could drag on for the most divisive texts. Long-standing disputes between Western and Eastern member states are expected to continue: Eastern nations – often coal-dependent – tend to resist decisive EU climate legislation.

As part of the draft legislation, passenger cars – responsible for around 12% of total EU emissions of carbon dioxide (CO₂) – that run on fossil fuels would be completely phased out by 2035. All new cars registered as of 2035 will be zero-emission. The EU would also stimulate the uptake of electric vehicles, with regulations ensuring that all EU citizens can recharge and refuel their vehicles anywhere in the bloc. It also intends to boost the domestic production of hydrogen and its use as an alternative fuel. The objective is to have charging points at regular intervals on major highways: every 60 kilometres for electric cars and every 150 kilometres for hydrogen refueling.

The Commission has also set its sights on the aviation and maritime sectors, which have proven harder to decarbonize than road transport. For aviation, the goal is to bring into the mainstream Sustainable Aviation Fuels (SAFs), that are considered "technologically ready to replace fossil fuels. The maritime sector would be obliged to be more energy efficient and increase the use of clean energy. By 2050, renewable low-carbon fuels would constitute more than 80% of the sector's fuel mix.

The European Commission also wants to put a price on carbon that is imported into the EU's single market. In practice, this means a new border tax. The Commission says the EU is subject to stricter climate rules than its trading partners. This creates a situation known as carbon leakage: as the EU cuts down greenhouse gas emissions, other non-EU countries would increase their emissions to gain a competitive advantage. The carbon border adjustment mechanism would put an extra charge on the imports of carbon-intensive goods mirroring the EU's own carbon pricing rules, forcing imports to have a similar price as if they had been produced following EU legislation.

The extra charge would be paid by the EU businesses that import the polluting goods into the single market. Initially, the instrument would target imports considered more at risk of carbon leakage: cement, iron, steel, aluminum, fertilizer and electricity. Turkey, Russia, Ukraine, Egypt and China will be immediately affected by the measure since they are the biggest exporters of the selected products.

RESEARCH: AMAZON IS NOW A CARBON EMITTER

The Amazon rainforest now emits more carbon dioxide than it is able to absorb, scientists have confirmed in an article published in the journal *Nature*. The emissions amount to a billion tonnes of carbon dioxide a year. The giant forest had previously been a carbon sink, absorbing emissions. Most of the emissions are caused by fires, many deliberately set to clear land for farming. But even without fires, hotter temperatures and droughts mean the south-eastern Amazon has become a source of CO₂, rather than a sink. Growing trees and plants have taken up about a quarter of all fossil fuel emissions since 1960, with the Amazon playing a major role.

The research used small planes to measure CO₂ levels above the forest over the last decade, showing how the entire Amazon is changing.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

Scientists said the discovery that part of the Amazon was emitting carbon, even without fires, was particularly worrying. They said it was most likely the result of each year's deforestation and fires making adjacent forests more susceptible the next year. The trees produce much of the region's rain, so fewer trees means more severe droughts and heatwaves and more tree deaths and fires.

Said Luciana Gatti, at Brazil's National Institute for Space Research, who led the research:

"The first very bad news is that forest burning produces around three times more CO₂ than the forest absorbs. The second bad news is that the places where deforestation is 30% or more show carbon emissions 10 times higher than where deforestation is lower than 20%. We have a very negative loop that makes the forest more susceptible to uncontrolled fires. We need a global agreement to save the Amazon."

OUR READERS KNOW A THINK OR TWO

1 Assisted Colonization?

A dear reader found a May 30 **Village Green** article disconcerting. The article, *Assisted Colonization: Opportunity or Risk?* described a proposal that nations should agree on guidelines for "assisted colonization" – a process meant to help species that are losing their survivable habitat due to climate change by relocating them to more suitable areas and habitats.

Said our dear reader:

"Is it just my blood that boils when humans take it upon themselves to appear to be altruistically helping (interfering once again) in the business of other species? I think it escapes their mind that we created this disaster and since we did such a good job of that, we can now fix it. This new action entitled assisted colonization should be used on one and only one species. That is how you solve the root of the problem, not the symptoms. Let us all inhabit Mars and continue to destroy a new planet."

2 What's a Forest Worth?

In response to a dear reader's explanation of how his stand of forest is economically unvalued unless it is destroyed, another dear reader has commented on sustainable forestry (with link):

"Economic value is not the only reason for sustainable forests – but it's a good one:" (see <https://www.nationalobserver.com/2021/06/30/news/old-growth-fairy-creek-worth-more-standing-study>.)

SHE SAID / HE SAID (with a Latin American bias this time)

"Forgive us for not caring for your creation, for not learning to respect the beauty of the forests, and for exterminating vast areas of trees. ... Forgive us for staining the rivers with our selfishness and greed, for wanting to gain wealth without consideration for the suffering of our brothers and sisters. ... Forgive us because we have turned our common home into a house of death and desolation. Forgive us, Lord, forgive us."

penitential prayer offered by newly ordained Catholic Bishop Miguel Angel Cardenas
of Iquitos, Amazonian Peru, July 19 2021

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

“In Latin America, environmental policy is also a social issue because the costs of climate change land heavily on ethnic and racial minorities. Leftist politicians – who often rely on natural resources to achieve their priority of redistributing wealth – have all too frequently sided against the environment and its defenders in the process. In Ecuador’s April election, progressive presidential candidate Andrés Arauz – who narrowly lost – dug in his heels on oil drilling in the Amazon over loud objections by indigenous groups. Bolivia’s socialist President Luis Arce, too, was chided by the environmental movement for allowing agribusinesses to run wild with deforestation, fueling catastrophic forest fires while he served as finance minister in 2019.”

Paul Angelo and Will Freeman,
A Socially Conservative Left Is Gaining Traction in Latin America,
Americas Quarterly June 23, 2021

“According to the latest report by the NGO Global Witness, more environmental activists are murdered in Latin America than any other region of the world, with two-thirds of cases in 2019. Colombia sits top of this grisly list, with 64 killings. To date, the Observatory of Mining Conflicts of Latin America (OCMAL) registers 284 ‘social conflicts’ over mining. The majority are in Mexico, Chile and Peru, followed by Argentina, Brazil and Colombia. Behind those figures there are people. And behind each of them, a family and a community. Despite the growing influx of Chinese capital and the significant presence of British companies, more than half of the mining ventures in the Latin America continue to be owned by Canadian companies.”

Juan Parrilla, *Social conflict blights mining projects across Latin America*,
published on the Diálogo Chino website, June 11, 2021

“According to a World Food Program report last year, only seven other countries in the world are more at risk for natural crises than Guatemala—particularly when it comes to water access. But life had become untenable. One farmer told [agricultural engineer] Gáldamez that he was harvesting 70 pounds of corn each year from land that used to give him 800. On a whiteboard in the two-room schoolhouse, Gáldamez outlined a plan that the World Food Program was going to consider for the village: new trees to plant, stone terracing on the mountainside to conserve water, vaccines for the poultry. ‘Before this dry period people here always had reserves to live on,’ he said. ‘But climate change came and they started seeking other options.’ Gáldamez understood their desire to flee: His own daughter paid a coyote—human smuggler— to sneak her into the U.S. six months earlier. Now working as a server in a restaurant in California, she’s making five times more than her salary as an agronomist in Guatemala.”

Nina Strohlic, *A hunger crisis forces Guatemalans to choose: migration or death*,
National Geographic web site, July 26, 2021

“For more than 15,000 years the First Nations walked upon, and cared for, the lands we now call home: Anishinaabek, Haudenosaunee, Ojibwe, and many others who cared for their families and communities, the way we now seek to care for ours. The Town of Collingwood acknowledges the Lake Simcoe-Nottawasaga Treaty of 1818 and respects all of the Nation-to-Nation agreements that have formed relationships with the original inhabitants of Turtle Island; the reality of our shared history; the current contributions of Indigenous people within our community and seeks to continue empowering expressions of pride amongst all of the diverse stakeholders in this area.

THE VILLAGE GREEN

Number thirty-five, August 3, 2021

We seek to do better, to continue to recognize, learn, and grow, in friendship and community, Nation-to-Nation.”

New land acknowledgment statement adopted by the Town of Collingwood, to be read by the mayor or chair at the start of any council and town committee meeting

“June really was as hot as you thought it was. The latest report from the European Union’s Copernicus Climate Change service, which tracks global temperatures using billions of measurements taken from around the world, confirms what we already know: June 2021 was the warmest June recorded in North America.”

Aryn Baker, Hot enough for ya?

Time magazine’s *Climate Is Everything* newsletter, July 7 2021

in the moonlight a worm
silently
drills through a chestnut

Matsuo Bashō (1644-1694)

“GREEN LEAF FROM OLD RAG” DEPARTMENT

(In which we resurrect old poems for those in search of new visions of the natural world)

The Pool

Markdale Standard, November 20, 1924, page 3

I know a deep and lonely pool – that’s where
The great kingfisher makes his sudden splash;
He has so many jewels in his plumes
That all we see is one blue lightning flash!

But whether that fine bird comes there or no,
There I’ll be found before the coming night –
Beside that dark, deep pool on whose calm breast
Sleep a young family of pools of light.

And near my pool an ancient abbey stands,
Where I, when lying in the longest grass,
Can see the moonlight, tender, soft and fair
Clasped to the rugged breast of that black nurse.

W. H. Davies

For information about *The Village Green*, or to subscribe to it (free), please contact John Butler at 519 923-6335 or agora@xplornet.com