Newsletter of the League of Women Voters of Los Alamos P.O. Box 158, Los Alamos, NM 87544 https://my.lwv.org/new-mexico/los-alamos Volume 77, Number 11, March 2025

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FIRST CALL TO LWVLA ANNUAL MEETING

April 17, 2025 at the Unitarian Church

Calendar

March 20	Lunch with a Leader, Unitarian Church, 1738 N. Sage Loop. Gwen Kalavaza, noon
March 27	Board Meeting, Unitarian Church, noon
April 17	Lunch with a Leader, Unitarian Church, Christine Chandler, noon;
April 17	LWVLA Annual Meeting, Unitarian Church, 1- 2:30 p.m.

March Lunch with a Leader: Library Manager Gwen Kalavaza

Our next Lunch with a Leader will be from noon until 1 p.m. on March 20 at the Unitarian on Sage Loop. Our leader will be Gwen Kalavaza, who has been a dedicated member of the Los Alamos Public Library staff since 2001, serving in various roles such as Branch Manager and Digital Services Manager. She has been the Library Manager since 2022. In that role, she oversees both Mesa Public Library and the White Rock Branch Library.

Born and raised in Andover, Maine, Kalavaza earned a Bachelor's degree in Geography from Clark University. After moving to New Mexico, she worked at the Fogelson Library at the College of Santa Fe while pursuing her Master's degree in Library Science from the University of Arizona, which she completed in 2000. She has since built a career focused on enhancing library services and community engagement. Kalavaza is passionate about reading, outdoor activities, and spending time with her family. Her leadership has contributed to the development of innovative programs and services at the library, including digital collections, nontraditional item checkouts (like telescopes and cooking equipment), and diverse youth and adult programming.

Karyl Ann Armbruster



County staff; Los Alamos; Los Alamos County; New Mexico; studio portraits;

Call to Annual Meeting

The Annual meeting will follow the April Lunch with a Leader (LWL) meeting on April 17. Representative Christine Chandler will be the speaker for the LWL program.

The information about the Annual Meeting will be mailed to all League members next week. We urge you to read it, save it, and plan to participate to hear a review of the past year, elect a new board, approve the budget, and help plan the year ahead.

Observer Corps Report –County Council – February 11

DOE Environmental Management Update; 2025 State Legislation; Federal Priorities

The work session was attended by Chair Theresa Cull, Councilors Melanee Hand, Suzie Havemann, Ryn Herrmann, Beverly Neal-Clinton, David Reagor, and Randall Ryti.

Our observer report is based upon discussion during the meeting and documentation provided in the full agenda package. This report was prepared with the assistance of two artificial intelligence software applications: otter.ai and ChatGPT.

Update from DOE Environmental Management, Los Alamos Field Office (DOE EM-LA)

Jessica Kunkle, DOE's EM-LA Field Office Manager, provided an overview of the DOE's accomplishments for FY2024, which include legacy cleanup conducted by Newport Nuclear News (N3B), and excess process contaminated facility disposition, managed by APTIM Federal Services. Brad Smith, President of N3B, provided a forward look to their FY2025 activities, some of which are described below.

Hexavalent chromium plume

Kunkle provided background about the hexavalent chromium groundwater plume. The plume was first discovered in 2004, when a routine groundwater monitoring sample exceeded the State Groundwater Standard of 50 ppb. The plume is approximately 1,000 feet below Mortandad and Sandia Canyons and about one mile long by one-half mile wide.

To address the potential migration of the plume, DOE implemented an interim measure in 2018, consisting of five extraction wells, a groundwater treatment system, five injection wells, and over three miles of buried conveyance lines.

Technical disagreements between the DOE and the New Mexico Environment Department (NMED) led to the engagement of an expert technical review team in March 2024. The team's final report was published in December 2024.

Kunkle mentioned that EM-LA is in discussion with NMED about implementing an "adaptive site management" approach for the plume, prior to a final remedy being selected.

Transuranic (TRU) Waste Management

TRU waste is man-made material contaminated with radioactive elements that have atomic numbers greater than uranium. Kunkle said that, to date, EM-LA has completed 187 shipments of TRU waste to WIPP, which totals about 590 cubic meters of waste. "While this is very impressive, we do still have a lot of waste here," said Kunkle. "So, it's important to note that Los Alamos has what's called an 'at ready' agreement with the Waste Isolation Pilot Plant (WIPP), meaning that all shipments of TRU waste from Los Alamos take priority from other shipments across the DOE complex."

Corrugated Metal Pipe Project

In 2022, N3B initiated retrieval operations for 158 corrugated metal pipes (CMPs) that contained cemented radioactive waste. The waste came from a former LANL radioactive liquid waste treatment facility at TA-21 that operated during the Cold War era. In 1986, the CMPs were buried in Area G at TA-54. Each CMP is 20 feet long and weighs between 10,000 and 14,000 pounds. Once retrieved, the 158 CMPs were cut into five separate sections, which created 792 standard waste boxes. Kunkle said that they plan to begin shipping the CMPs to WIPP after completing the characterization process necessary to ensure compliance with waste acceptance criteria.

Pit 9 Project

Preparations are underway to begin retrieval of TRU waste buried at Pit 9, a former waste disposal site. Pit 9 contains an estimated 3,882 metal drums, 191 fiberglass reinforced plywood boxes, and six other containers. Retrieval is scheduled to begin in late 2026.

Material Disposal Areas

Material Disposal Areas (MDAs) "are typically waste disposal sites that were used principally in the Cold War era," said Kunkle, "and they include everything from septic tanks to just buried waste. Some of these are very small. Some of these are multiple acres." In total, there are 206 MDAs at the Laboratory, of which nine have been remediated and 17 still require corrective action.

Environmental remediation

"Aggregate Areas" are locations across mesa tops, canyons, or watersheds throughout the Laboratory that may contain contaminated soil or debris from legacy operations at the Laboratory. "A key component of this work that we do in our Aggregate Areas is focusing on protecting the water quality," said Kunkle. "So, this is where we do quite a bit of both our water quality monitoring and sampling and remediation work, but also soil remediation."

There are 205 sites that were located within the Town Site boundary, and 172 of those have been investigated and remediated. A number of those remaining to have action are either inaccessible or in progress.

Workforce challenges

Brad Smith discussed the challenges of recruiting and retaining employees. N3B's current attrition rate is about 10%, down from a high of 30% two years ago. Efforts to improve workforce engagement include quarterly business meetings with union agents and managers, and expanding training programs with local colleges.

Impact of current administration changes

Chair Cull asked "What impacts, if any, are you seeing with the changes that are coming out of the current administration?" Kunkle replied that it was too early to tell.

2025 State Legislative Session

Danielle Duran, Intergovernmental Affairs Manager, updated Council on the 60-day state legislative session that started on January 21 and ends on March 22.

Duran is tracking over 60 bills that could impact the County.

Below is a selection of the bills being tracked by Duran that address health care, medical practitioners, medical malpractice, wildfire mitigation, environmental issues, education, and other issues.

Bills addressing public health and medical practice issues

- SB46. Interstate Medical Licensure Compact. Enables New Mexico to join this compact to facilitate interstate practice by physicians and improve public access to physician services. *Duran: Support*
- HB108. Statewide Public Health and Climate Program. Creates a public health and climate program in the Environmental Health Bureau of the Epidemiology and Response Division of the Department of Health to focus on health equity, reducing health impacts of extreme weather and helping communities build resilience to climate change. Duran: Support
- Health Prevention Project. Appropriates \$1.45 million to the Public Education Department for a youth behavioral health prevention project that will provide online behavioral health education resources, premoderated peer-to-peer support services, and online private sessions with statelicensed behavioral health professionals. *Duran: Support*

- SB54. Coordinated Behavioral Health Initiative. Establishes a coordinated multiagency approach to addressing behavioral health issues that impact public safety and corrections statewide. Duran: Support
- HB11. Paid Family Medical Leave Act.
 Provides financial support to eligible workers when they need to take time off for certain personal or family-related reasons.

 Employees and employers will contribute to the program through payroll deductions.
 Duran: Support

Update: The Welcome Child and Family Wellness Leave Act, formerly the Paid Family and Medical Leave Act, cleared the House on 2/28/25 and is now headed to the Senate. The revised bill has several differences from the original. It separates medical leave and parental leave through the creation of a family wellness leave fund and welcome child fund. Though the original version of HB 11 proposed premiums on workers and employers to pay for parental leave, lawmakers now plan to pay for welcome child leave through the state Early Childhood Education and Care Department's existing budget.

Bills addressing wildfire and other natural disasters

- SB33. Wildfire Prepared Act [and Fund].
 Appropriates \$20 million in grants to strengthen preparedness of structures for wildfires through the newly created Wildfire Prepared Fund and the awarding of grants for a Wildfire Prepared Program. The grants would go through the state and local government entities to neighborhoods that want to get prepared for wildfire. Duran: Support
- HB175. Forest and Watershed Buffer Projects. Amends the Forest and Watershed Restoration Act by making projects to create or maintain buffers in and around wildland-urban interfaces. Duran said, "it gives the state money and authority to create those barriers between a township

or residential area in the forest." *Duran:* Support

Bills addressing environmental issues

- HB32. Electric or Alt Fuel School Buses.
 Amends the Public School Finance Act to require the Public Education Department to allow school districts to replace a school bus with an electric or zero-emission alternative fuel bus. Permits the electric buses to be used for electrical energy storage when not in use for transportation.
 Duran: Support
- HB51. Energy Storage System Income Tax Credits. Grants income tax credits to taxpayers who purchase and install an energy storage system on the taxpayer's residential, commercial, industrial, or agricultural property in New Mexico. Duran: Support
- HB45. Renewable Energy Production Tax Act. Places a 3.75% tax on each megawatt of electricity generated using renewable energy in New Mexico. "Given that we want to support more renewable energy, I thought we would probably oppose that." Duran: Oppose

Other bills being tracked

- SB38. Special Education Act. Aims to improve educational outcomes for students with disabilities by creating a more comprehensive, coordinated, and supportive special education system in New Mexico. Creates an Office of Special Education within the Public Education Department. "Los Alamos Public Schools called me and said, this new bill is not something that is good for public school students, so please oppose it," said Duran. "Even the Special Ed Teachers Association opposes it." Duran: Oppose
- HB497. Inspection of Public Records Act (IPRA) Changes. Make comprehensive changes to how public records are requested, accessed, and protected. Expands the list of exemptions from public records inspection, including protecting personal contact information, medical

records, cybersecurity information, and various sensitive law enforcement records. The changes would protect the privacy of public utility customers' bills by making them not subject to IPRA. Other provisions in the Act revisions would protect election workers. *Duran:* Support

- HB276. Public-private Partnerships Fund and Programs. Establishes a new Public-Private Partnership (P3) Fund and Program in New Mexico to support broadband and transportation infrastructure projects through innovative funding and collaboration between public and private entities. Duran: Support
- SB144. Affordable Housing Act Funding. Provides \$500K to carry out purposes of the Affordable Housing Act. *Duran:* Support
- HB27. Librarian Protection Act: No Book Banning. Duran: Support
- SB126. Increase Funds for Broadband Program. Increases the annual distribution from the State Rural Universal Service Fund to the broadband program from \$30 million to \$40 million, less certain statutory expenses. *Duran: Support*
- SB349. Northern New Mexico Economic Development District. Appropriates \$37M to the district; \$2M for housing planning and design grants, and \$35M for grants to public entities for housing and infrastructure construction. *Duran: Support*

Public engagement with state legislation

Councilor Havemann initiated a discussion about increasing public engagement in the state legislative sessions by keeping the community informed on the county's priorities and state legislative developments. "If we really want these things to be successful, I think that's a heavy load just for Ms. Duran to carry for us," she said. She felt the County would be more successful if it could get people in the community to know what's going on through public information, and tell them, "Hey, we decided, collectively, as your County

government representatives, these things are important; and if you agree they're important, these are the three people to call, or the three places to email."

Duran agreed with the councilor, but noted the main challenge would be to balance the time and resources needed for organizing and disseminating the information effectively. She was concerned about the extra workload without additional support to assist in outreach efforts.

Councilor Havemann proposed that the County use platforms like press releases, the County Line, and social media to help raise awareness without overwhelming staff.

Duran concurred that sending out updates a few times during the session, with clear action points for public involvement, seemed like a manageable strategy.

2025 Federal Priorities (DOE and NNSA)

Voting 6–1, Council approved the 2025 Los Alamos Federal Priorities List, with Councilor Reagor in opposition.

Danielle Duran, explained that, every year the Council votes on a set of federal priorities, after which the members of the Federal Work Group go to Washington, DC to talk to the federal delegation, as well as to committees and agencies that are pertinent to those priorities. She presented Council with the following draft list of the County's federal priorities for 2025 (Federal Fiscal Year 2026), in anticipation of Congressional meetings in March 2025.

EM and NNSA Appropriations

- Fund and support the Laboratory's national security mission and Laboratory — County essential operations, such as the fire department and public utilities, recognizing the intertwined nature of operations.
- Support and fund LANL's environmental cleanup mission and budget for the following purposes:
- Require EM to fund any additional wells or infrastructure required to keep the drinking

water in Los Alamos safe; to fully fund the Independent Technical Review recommended actions to clean up the hexavalent chromium plume.

- Require EM to provide the County with a full risk assessment and information to make an informed decision on its position on possible future conveyance of MDA-T, which is located at Technical Area (TA) 21 at the end of DP Road.
- Continue and accelerate shipping TRU waste from LANL to WIPP.
- Require NNSA to fully fund the Rendija Canyon munitions and explosives of concern clearance and transfer the land to the County.

Pass new land transfer law

The County is requesting that Congress create a new land transfer law to convey land to the County to enable the County to make land available primarily for housing and other development. The last such transfer was over 25 years ago.

The proposed law would require all federal agencies surrounding Los Alamos County—not just DOE and NNSA—to identify land for conveyance for the purpose of housing, which is vital to addressing housing needs for the national security mission.

Create a DOE Community Infrastructure Grant Program

This Program would ensure communities are able to support the DOE Mission. DOE has facilities in at least 39 states, with 17 laboratories in 14 states, affecting hundreds of cities and counties across the country. The operations include a wide variety of activities that support military bases and the people who live and work at the bases. DOE facilities require community support for transportation, utilities, housing, and workforce. In New Mexico this program could assist communities and DOE around Sandia, LANL, and WIPP.

Secure funding for the County to support infrastructure projects

This funding would serve the County and Northern New Mexico. Projects may include, but are not limited to, the Jemez Mountain Fire Protection Project, Women's Dorm Renovation, NM State Road 4, and housing infrastructure.

Support efforts for alternative energy projects, including new nuclear and consent-based siting.

Pass the amendment to the Radiation Exposure Compensation Act (RECA) extending the time of and eligibility of coverage and adding New Mexico and other states' eligibility. "At this time, it is no longer law," said Duran, "so new legislation would need to be created for that support for people who have been exposed to radiation as a result of working for the federal government to be put back up."

Local News Coverage

Los Alamos Daily Post, Feb 15, 2025: Video: Councilor Hand's briefing on Feb. 11 work session.

https://ladailypost.com/video-councilor-hands-briefing-on-feb-11-work-session/

Stephanie Nakhleh, *Boomtown*, Feb 13, 2025: LANL legacy cleanup: progress and challenges in 2025.

https://www.boomtownlosalamos.org/p/lan l-legacy-cleanup-progress-and

Daniel Chacon, Santa Fe New Mexican, Feb 28, 2025: Paid family and medical leave bill passes House, heads to Senate.

https://www.santafenewmexican.com/news/legislature/paid-family-and-medical-leave-bill-passes-house-heads-to-senate/article_dbb2250a-f60a-11ef-bdd8-e316ade3937f.html

June Fabryka-Martin and Craig Martin

Observer Corps Report – Planning & Zoning Commission – February 12

Nothing relevant to League issues was on the agenda for this meeting.

Observer Corps Report – County Council – February 25

Enacting an Improvement Special Assessment Program; Natural Gas Supply Agreement; Inclusivity Task Force; Site Wide Environmental Impact Statement

The regular session was attended by Chair Theresa Cull, Councilors Melanee Hand, Suzie Havemann, Ryn Herrmann, Beverly Neal-Clinton, David Reagor, and Randall Ryti.

Our observer report is based upon discussion during the meeting and documentation provided in the full agenda package. This report was prepared with the assistance of two artificial intelligence software applications: otter.ai and ChatGPT.

Public Hearing: Enacting an Improvement Special Assessment Program under the New Mexico Commercial Property Assessed Clean Energy Program (C-PACE)

By a vote of 7–0, Council approved an ordinance enacting an Improvement Special Assessment Program in the County to permit commercial loans for "green" improvements under the New Mexico C-PACE program.

Abbey Hayward, County Conservation Coordinator, and Eric Christensen of Adelante Consulting, the New Mexico management contractor for the state's C-PACE program, presented an overview of the program and what it can do for commercial property owners.

Christensen explained that C-PACE provides long-term fixed-rate financing for energy efficiency, renewable energy, water efficiency, and resiliency improvements on eligible properties. The types of improvements funded by C-PACE include lighting upgrades, solar photovoltaic (PV) systems, EV charging stations, boilers and hot water heating, and fire resiliency. Commercial properties, industrial properties, and multi-family properties with five or more dwelling units are eligible for this program.

Benefits for property owners include receiving financing for 100% of the project cost, up front, at a fixed interest rate for 30 years. Also, the loan is secured by a property lien—not a personal guarantee—that in this case is held by Los Alamos County through a special assessment lien. A Special Assessment Lien runs with the land, and is transferable to new owners if the property is sold. However, all negotiations and transactions, such as billing and collections, are between the lender and the borrower, with no involvement of the County.

The program, supported by a 1% administrative fee capped at \$25,000, has seen success in other states, with \$7 billion funded on over 3,000 commercial properties. C-PACE funding comes entirely from the private sector, with no public dollars or subsidies. It is not reliant on federal funds.

Council discussion and public comments

Councilor Reagor asked, "What's the difference between this and a regular bank loan? What are you actually providing as an extra service?"

Christensen replied that advantages include the length of the term and the fact that, because there's not a requirement for personal guarantees, it runs with the property. He added that "there are also cases where, even though the [interest] rates might seem comparable, banks aren't lending where C-PACE is willing to step in."

Phil Gursky, the local representative of a Chicago-based development group, expressed support for the C-PACE program. He highlighted its benefits for high-tech buildings. including those that his group is planning for Los Alamos. "Investors are looking at this and saving, there's a lot more of the cost of the project that does not have to be financed by bond investment. So, from that perspective, it's an extremely attractive one. So, we're absolutely in favor of this project. It's become a common source of use of financing. combined with the equity that we put in projects, to reduce the amount of borrowing that comes from bonds and other kinds of institutional market or bank financing."

Sandy Jones, from the Los Alamos
Commerce and Development Corporation, also
encouraged Council to adopt the ordinance for
the C-PACE program. "We believe that this
program will help our commercial property
owners in making needed energy efficiency
improvements, and it will benefit our small
business community, who are tenants of these
properties, because they should reap cost
savings because of the energy efficiency
gained by these improvements that are
financed over long periods of time."

Councilor Ryti supported the program. "I think there's some promise on this one that we might actually be able to get some additional funding for projects... So [I'm] just looking forward to this one actually getting implemented, and seeing some projects move forward that are more efficient."

Councilor Havemann agreed. "I think that if we can see some progress and improvements in those areas, that will help us achieve our Climate Action Plan goals, it will also just improve the whole comfort and aesthetics of the buildings in our community."

Natural Gas Supply Agreement between Los Alamos County and the New Mexico Municipal Energy Acquisition Authority (NMEA)

By a vote of 7–0, Council approved a resolution amending the Natural Gas Supply Agreement between Los Alamos County and

the New Mexico Municipal Energy Acquisition Authority.

Ben Ulbrich, Deputy Utility Manager, described the proposed resolution regarding the NMEA Natural Gas Supply Agreement. He explained the agreement's benefits, including a discount per unit of gas, expected to save money for consumers. The agreement, which has been in place since 2009, involves issuing bonds to leverage tax-exempt rates. This results in significant savings on the cost of gas to the County, despite market volatility.

Continuing his explanation, Ulbrich said that, every five years, the agreement refunds bonds and issues new ones. The current focus is on extending the agreement for another 15 years, which would double potential savings. Over 15 years, the agreement has saved about \$2.35 million on \$41 million of gas purchases. While gas prices fluctuate, the extension is expected to provide ongoing savings and flexibility in managing costs, with a potential discount of around \$0.50 per unit of gas. The Board of Public Utilities and the Department of Public Utilities (DPU) both recommended extending the agreement to continue securing affordable resources for customers.

Council discussion

"How does this protect the people of the county from the big price spikes we saw before?" asked Councilor Reagor. "If there's another outage of some major scale that creates a giant price spike, we end up in the exact same spot. ... I don't see how this is going to help us."

George Majors, the DPU financial advisor, responded, "That's an easy question. It doesn't. It's not intended to address that in any way, shape, or form."

In its approval of the resolution, Council emphasized the economic benefits and the lack of future costs if new agreements were needed. Summarizing her reasoning, Councilor Hand said, "the key words to me are 'obtain a gas discount,' and also that we had a recommendation for the economic benefit that is worthwhile."

Charter for the Inclusivity Task Force

By a vote of 7–0, Council approved extending the deadline for the first progress report of the Inclusivity Task Force through May 2025. Council also approved expanding the size of the task force from 7 to 9 members. Council appointed Richard Brethour-Bell, Rachel Cazier, and James Wernicke to the task force.

Site Wide Environmental Impact Statement (SWEIS) for the Continued Operation of the Los Alamos National Laboratory

By unanimous vote, Council approved comments to be submitted to the NNSA regarding the SWEIS for the Continued Operation of the Los Alamos National Laboratory.

NNSA prepared the Draft LANL SWEIS to analyze the potential environmental impacts associated with continuing LANL operations and foreseeable new and/or modified operations and facilities for approximately the next 15 years. The comment period closes April 10, 2025.

Excerpts from the County's draft letter of comments

"In general, we find the report very thorough and a confirmation of the potential for effective redevelopment and economic progress at LANL. Overall, the Incorporated County of Los Alamos ("County") supports the preferred Expanded Operations alternative".

"The County consistently supports LANL's interest "to expand operations and missions to respond to future national security challenges and meet increasing requirements." The County is confident that the preferred alternative would be in the best interest for the County and the surrounding community. As discussed in Section 5.9 of the LANL SWEIS, the total direct and indirect employment of 29,603 people by the end of 2038 would be an economic driver for our local economy and facilitate additional improvements for the quality of life in our community.

Additionally, we support the decontamination, decommissioning, and demolition of aging facilities and modernization of existing facilities, as well as construction of new facilities, to make the Laboratory's operations more energy efficient. We support the Los Alamos Canyon Bridge replacement projects, including additional energy projects, the proposed hydropower demo/test facility, and mini reactors, and efforts to reduce fire risk and manage feral cattle. Facilitating and incorporating clean energy-efficient solutions are essential to the continuous success of LANL and the County working together through Los Alamos County utilities."

Council discussion

- Chair Cull highlighted the need to submit supportive comments to the Laboratory, countering the strong public opposition expressed at the public meeting held in Los Alamos on February 13, 2025.
- Councilor Hand added that the County's current Comprehensive Plan includes a moderate growth strategy, which aligns with the Laboratory's recommendations for expansion.
- Councilor Ryti noted the alignment between the comments in the letter and federal priorities that Council discussed at its previous meeting (see observer report for 2/22/25, this issue), which included the importance of infrastructure such as Los Alamos Canyon Bridge and the County's water supply wells.

Local news coverage

Los Alamos Daily Post, Feb. 28, 2024: Video: Councilor Ryn Herrmann Recaps Feb. 25 Meeting.

https://ladailypost.com/video-councilor-rynherrmann-recaps-feb-25-meeting/

Los Alamos Daily Post, Feb. 19, 2025: County Press Release.

https://ladailypost.com/county-publichearing-on-c-pace-financing-program-feb-25/

June Fabryka-Martin and Craig Martin

February Lunch with a Leader: Hari Viswanathan Explains Al

The League invited Dr. Hari Viswanathan, a LANL Fellow in the Earth and Environmental Sciences Division, to present a non-technical introduction to Artificial Intelligence (AI) for the February Lunch with a Leader program. This report is based on his slides as well as his talk. He began by saying that AI is permeating all aspects of our lives, so it is important to know what it can and cannot do: "it can be used for really good stuff or really bad stuff, but it's easier to do bad things."

Artificial Intelligence (AI) is the field of computer science that focuses on simulating human intelligence. It is a data-driven approach. Throughout history we have had both data-driven approaches and physics-informed approaches (equations). AI uses large quantities of data to figure out patterns and trends. "Data is money; the richest people in the world have made their fortunes by collecting data to figure out patterns and trends." AI must be trained just as one would train a human being - slowly, systematically.



Hari S. Viswanathan, Senior Scientist, Los Alamos National Laboratory

The key aspects of AI are:

- Machine Learning: Al systems learn from data and improve performance without being explicitly programmed.
- Natural Language Processing: AI, trained on text on the internet, understands, processes, and generates human language (e.g., chatbots).
- Computer Vision AI can analyze and interpret images and videos (e.g., facial recognition, medical imaging).
- Robotics AI-powered robots can perform tasks autonomously (e.g., self-driving cars, industrial automation).
- Expert Systems Al mimics human expertise in specific fields (e.g., medical diagnosis, fraud detection).

Viswanathan recommended the book *Nexus: A Brief History of Information Networks from the Stone Age to AI* by Yuval Noah Harari as a high-level overview. According to Harari, throughout history most of humanity has relied on information networks, progressing from oral stories to books...television, the internet, and ultimately to AI.

The first step in developing AI came in the late 50s. In 1958 the Perceptron, the first trainable neural network capable of learning simple patterns, was reported, but while the innovation was important, it did not take off; more computing power was needed. The rise of video games and the development of what is now a multi-billion-dollar industry led to the invention of GPUs or graphical processing units. GPUs proved to be very effective for AI as well.

The next notable achievement occurred in 1997 when IBM's Deep Blue defeated world chess champion Garry Kasparov. Then, in 2012, there was a breakthrough in image classification when AlexNet won the ImageNet Challenge with 14 million images in 1,000 different categories. This achievement enabled AI to classify images with human-like accuracy. It is useful for facial recognition, medical diagnostics, security.

In 2016 AlphaGo defeated Lee Sedol, the Go world champion, demonstrating that intuition was not needed to win. Instead the feat was accomplished with deep reinforcement learning and neural networks; self-learning through millions of simulated games; innovative, unpredictable strategies.

In 2017 the Google paper "Attention is all you need" introduced the Transformer, a new type of neural network, the foundation of ChatGPT, BERT, and AI-powered search.

Protein Folding (2022)

Protein Structure determines their function

Key Milestones:

- 2018: AlphaFold win a global protein-folding competition
- 2020: AlphaFold 2 achieves breakthrough accuracy in protein structure prediction, winning CASP14
- 2021: DeepMind publishes AlphaFold's results and open-sources its predictions
 2022: AlphaFold predicts structures for nearly
- 2022: AlphaFold predicts structures for nearly all known proteins, revolutionizing biomedicine & drug discovery
- Impact: Transformed biology, medicine, and drug discovery by solving the 50-year-old protein-folding problem



Generated by DALL-E

Los Alamos

Also in 2024, Geoffrey Hinton and John Hopfield won the Nobel Prize in Physics for discoveries and inventions that enable machine learning with artificial neural networks.

Viswanathan noted that "it was interesting to know how quickly it (AI) was advancing when for the longest time nothing was advancing." Generative AI has moved very fast in the last couple of years, creating new content (text, images, music, code) by learning patterns from data. The advantages are many: AI boosts creativity and efficiency. It is a useful tool for many

Deep Learning Nobel Prize Physics Hinton, LeCun, Bengio (2024)

"Godfather of Deep Learning" Breakthrough: Revolutionized AI with deep learning & neural networks

Key Innovation: Developed **backpropagation** for training neural networks

Impact: Enabled modern AI applications like ChatGPT, self-driving cars, and medical AI

Legacy: Al shaping the future of technology, automation, and intelligence





Since 2018 AlphaFold, developed

by DeepMind, has been instrumental

function. As Viswanathan said, "give

It has revolutionized biomedicine and

drug discovery and led to the award

of the 2024 Nobel Prize in Chemistry to John Jumper and Demis Hassabis

at Google DeepMind. David Baker

at the University of Washington

shared the prize for his work on computational protein design.

it a ton of data and let it figure out."

in predicting protein structure (3-D shapes), which determines their

fields. Chat GPT can write unbelievably good essays. However, it violates intellectual property and it is hard to find errors because it writes so well. The user must check carefully.

Information networks amplify influence and control. They raise ethical concerns of bias, misinformation, and surveillance. Manipulation of the system is a huge issue. As an example, Viswanathan cited the violence against the Rohingya in Myanmar, which was exacerbated by Facebook algorithms that emphasized inflammatory content.

In discussing the recent rapid progression of AI, he believes that most things in life plateau. But "for certain types of problems, it's going to blow us out of the water." We cannot avoid AI, but it is important to know what it is doing, what are its advantages and its limitations.

In conclusion, AI has transformative power but requires ethical oversight and regulation to prevent harm. Currently this regulation is lacking.

Barbara Calef

LWVLA Membership List

As of February 25, 2025

Albright, Esta Lee Alme, Rosemary Archbold, Greg Archbold, Monique Armbruster, Karyl Ann

Baker, Zack
Bartlett, Melissa
Bartlit, John
Bartlit, Nancy
Bedell, Bettie
Benson, Jody
Biddlecomb, Cynthia

Bohn, Laura Bohn, Roy Bradley, Paul Brooks, Marla Buckingham, Judy Calef, Barbara Carpenter, Helen Cashman, Brenna Chandler, Christine Chandler, George Collins, Julie Collins, Linn Cooper, Beverly Cull, Theresa D'Anna, Catherine DeHaven, Jyl Deschamp, Elaine Determan, Andrea Determan, John Dewart, Jean Doolen, Marilyn

Fabryka-Martin, June Fraser, Andrew

Dunn. Hedv

Frederickson, Rosmarie Gallagher, Gwendolyn Garimella, Madhavi Gisler, Galen Gisler, Susan Grimler, Michael Gursky, Phil

Hampton, David Hampton, Lisa Haval, Lvn

Havemann, Scott

Havemann, Suzie Hemez, Cecile Henderson, Kristin Hermann, Hans

Hermann, Ryn Hertzman, Jeri Berger Hertzman, Phillip Holmes, Jennifer Hopkins, John Howell, Jeffrey Izraelevitz, David Izraelevitz, Terry Jacobson, Adelaide

Jones, Lynn
Jones, Mark
Krier, Don
Laurent, Anne
Laurent, Steve
Lemmick, Barbara
LePage, Ann
Loncaric, Josip
Machen, Judy
Macke, Jenni
Marcus, Allen
Marcus, Wendy
Martin, Craig

Mason, Caroline (Cas)
Mason, Rodney
Mason, Sara
McClay, Marguerite
McFarland, Tracy
Mendel, Susan
Meyer, Coleen

Morris, Don Mortensen, Jeannette (JJ) Nakhleh, Stephanie Neal-Clinton, Beverly

Mills, Ellen

Nickols, Joyce Nobile, Anne North, Dave Olds, Cristina Olinger, Colleen O'Neill, Maire Orth, Felicia Ortiz-Moss, Nereida Peck, Akkana Priedhorsky, Bill Prono, Judy

Prono, Judy Quinn, Heather Rockwell, Warren Rose, Evan Rousculp, Chris Rousculp, Susannah

Ryti, Randall Sanders, Mary Santiago, Eduardo Sartor, Charlotte (Charlie)

Sayre, Katie

Sayre, Katie Sayre, Richard

Shankland, Rebecca (Becky)

Shlachter, Beverly Shlachter, Jack Skolnik, Richard Specter, Ellen Stockton, Margie Swanson, Wendy Taylor, Jessica Thomas, Carroll Tobin, Sandra B. Wallstrom, Leslie

Weisbrod, Elizabeth (Betsy)

Weller, Alahna C. Wells, Ann Wernicke, James Wheeler, Kyle Wheeler, Mike Whyte, Helena Williams, Bob Williams-Hill, Julie Wright, Allison (Mickey)

Tickler Reports – Council Agenda Items and BCC Vacancies

Tickler Report Tentative Council Agenda Items as of February 25, 2025

A partial list of tentative Council agenda items from the County tickler distributed on the above date. All items are subject to change.

- LEDA for Retail Program Structure & Process
 - o 3/11/25 meeting. Presentation and discussion. No action requested.
- Economic Development Update from LACDC & County Economic Development Staff
 - o 3/11/25 meeting. Quarterly update. No action requested.
- Piñon Elementary School Trail Connection **Project**
 - o 3/11/25 meeting Placeholder. Application for federal grant funding. Action requested to approve application.
- NM4 and Canyon Rim Trail Rehabilitation **Project**
 - o 3/11/25 meeting. Placeholder. Application for federal grant funding. Action requested to approve application.
- Cañada del Buey Trail Improvement Project
 - o 3/11/25 meeting. Placeholder. Application for federal grant funding. Action requested to approve application.
- Council Strategic Goal--Quality of Life o 3/18/25 meeting. Briefing. Action
 - requested.
- Parks & Recreation Board annual presentation
 - o 3/18/25 meeting. Presentation by Board Chair. No action requested.

eComment Tool for Council meetings:

You can submit comments at:

https://losalamos.legistar.com/Calendar.aspx.

Find the meeting and select "eComment" in the far-right column. Items open for public comment are marked with a "Comment" tag. See details at:

https://ladailypost.com/county-launches-

County BCC Vacancies as of February 28, 2025

Los Alamos County has 11 standing Boards and Commissions (BCCs). Generally, the purpose of a board is to serve in an advisory capacity to the County Council, but some have statutory responsibilities as well.

All BCCs and current vacancies are listed below as of the above date.

Upcoming vacancies are in yellow text. Changes from last report have a magenta highlight.

- Art in Public Places Board o 2 terms ending March 24, 2025 Board of Public Utilities
 - o 1 term ending June 30, 2025
- County Health Council No terms ending soon
- **Environmental Sustainability Board** 3 terms ending July 31, 2025
- Historic Preservation Advisory Board No terms ending soon
- Library Board 2 terms ending August 31, 2025
- Lodgers' Tax Advisory Board No terms ending soon
- Parks and Recreation Board
 - No terms ending soon
- Personnel Board
 - o 1 term ending March 31, 2025
 - Planning and Zoning Commission o 3 terms ending March 31, 2025
- Transportation Board No terms ending soon

Totals: 7 vacancies, 12 terms ending soon

Interested Los Alamos County residents may submit an online application by visiting the County's Boards and Commissions webpage and selecting "apply" at:

https://www.losalamosnm.us/Government/Leader ship/Boards-Commissions.

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MEMBERSHIP FORM

Mail to: LWV Los Alamos / P.O. Box 158 / Los Alamos, NM 87544 (Each individual must complete a separate application.)

Name:	Partner*:				
Addres	Date:				
	ZIP:				
	Phone 1:(cellular phone)	Phone 2:	(other phone)		
	E-mail (required):				
checks will go t	The recommended dues amount is \$75, but is for membership dues should be payable to LWVNM, and 33% will go to LWVUS. (On ion statement will be supplied on request.)	to LWVUS. 209	% of dues will go to	LWVLA, 47%	
Newsle	etter: How do you want to receive the Updat	te newsletter:			
	email it as a PDF file mail	a hard copy	no newsle	tter	
0	Check here to receive occasional Friendly Re	minders of upcor	ming events by e-ma	ail.	
Ways t	o help the League if you wish to be an act	tive member (ch	eck as many as app	oly)	
/	Advocate for League positions: communicate	with local, state,	, and federal leaders	3 .	
	Serve on the LWV-Los Alamos Board				
	Observer Corps: Watch Council, DPU, P&Z meetings etc. and write a summary to publish in or newsletter. (All meetings are recorded, so you can watch them later.)				
	Fundraising – Assist in raising money for LW	VLA.			
	Voter Guide – Assist in developing the Guide publications, etc	- edit, develop o	questions, work with	news	
1	Lunch with a Leader – order/deliver lunches v	when we meet in	person; help set up	tables.	
1	Newsletter – Write newsletter articles on a lo	cal issue or Leag	ue activity for the U	pdate.	
	Organize/provide refreshments for forums an	d other in-persor	n meetings.		
	Publicity – Submit press releases to local me	dia.			
	Voter registration – Register voters at events County Clerk's office).	such as the Farr	mers Market (with tra	aining by the	
\	Website / Social Media – Provide technical as	ssistance and de	velop content.		
	Another area (please specify):				

The League of Women Voters, a nonpartisan political organization, encourages informed and active participation in government, works to increase understanding of major public policy issues, and influences public policy through education and advocacy.

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