Does your agency/organization have a sustainability or resilience mission? If so, what is it?

Our mission is to protect human health and the environment but embedded within our agency are many sustainability and resilience programs.
Built into the MDH Drinking Water Vision and Mission Statements: - Vision: Safe and sufficient drinking water is available for everyone, everywhere in Minnesota. Mission: Implement strategic safeguards that protect drinking water from source to tap. Statements are valid only if sustainability and resiliency are incorporated.
Sustaining Minnesota's natural resources, landscape, water, habitats, wildlife, etc. is the core work of the DNR and included in our mission: "to work with Minnesotans to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life."
American Public Works Association – MN Chapter has the following vision, "Advancing quality of life for all Minnesotans through Asset Management." The mission to accomplish this is to "Support public works through Asset Management advocacy and education." The City of Eagan has the following sustainability vision, "Eagan is a resilient community that values natural living spaces and environmental stewardship".
Environmental Services exists to protect public health and the environment and support orderly, economic growth for the Twin Cities region through water resource recovery (wastewater treatment) and water sustainability planning.
MnDOT's agency vision: Minnesota's multimodal transportation system maximizes the health of people, the environment and our economy. The 2022 Statewide Multimodal Transportation Plan (SMTP) includes new climate, equity and health commitments: - Shift to more climate-friendly transportation options; - Ensure equity in transportation decision-making - Improve health outcomes and reduce disparities in Minnesota through transportation. The SMTP specifically includes focus areas around aging infrastructure and climate, directly related to resilience. Aging infrastructure: Infrastructure across the country is aging. As the system ages, more resources go to maintenance and repairs to make sure they serve communities as intended. Minnesota's transportation system shows signs of deterioration and requires attention. Climate: Minnesota's climate is already changing. Temperatures are increasing and larger, more frequent extreme weather events are occurring year-round. Climate change will impact the way the transportation system is used, built, designed, operated and maintained. The transportation sector needs to combat climate change by providing people with environmentally friendly choices to ensure their daily transportation needs are met.
Residents and visitors enjoy a clean, environmentally healthy, beautiful city.
Our Mission Statement: To promote the health and sustainability of Minnesota's construction industry through professional leadership and advocacy. In our Code of Ethics (adopted by our Board of Directors): Environment. Contractor will promote environmentally sensitive and sustainable design and practices.
Yes, one of the Department's core objectives is to plan for climate change resilience. We do so through multiple functions including the Division of Energy Resources, Insurance, and others. We are heavily focused on a clean energy transition at the state and local level.
MDA's mission is to enhance all Minnesotans' quality of life by equitably ensuring the integrity of the food supply, health of the environmental, and the strength and resilience of our agricultural economy.

Recurring Words: transportation, mission, health, climate, water, sustainability, vision, Minnesota's, and resources.

What do sustainability and resilience look like for your agency/organization?

Sustainability would be to ensure that public water supplies are safe, affordable and reliable for the long term. This applies to the natural environment (the source waters - rivers, lakes, groundwater) and the built environment (the infrastructure that delivers water to the consumers). Resiliency is in terms of ensuring that both the sources and the infrastructure are able to withstand short term impacts of extreme weather events and are also prepared for long term climate adaptation.
We have in depth programs focused at exploring water resource health and developing strategies to restore them (which creates resilient natural resources), we have units of tech staff who rank and score infrastructure projects for funding, we have explicit sustainability programs, and a climate section that is dedicated to exploring climate change, developing technical materials for planning and staff and funding aimed at funding resiliency and adaptation projects.
Climate change is one of the many threats to Minnesota's natural resources. Climate change exacerbates the impacts and risks of on-going issues such as: habitat loss/land use conservation; accelerated storm water runoff including agricultural drainage; ground water depletion and surface water use contributing to ecologically harmful low flows during times of drought; pollution and degradation of water quality; other introduction of toxic materials (lead, pesticide drift, etc.); invasive species/wildlife disease introduction and spread; and over consumption of resources. DNR's approach to sustainability and resilience incorporates a wide gamut of impacts and risks. Resources such as our Ground Water Management Strategic Plan, State Wildlife Action Plan, sustainable timber harvest practices, etc. address a range of risks and opportunities related to natural resources. DNR's programmatic responsibilities incorporate regulatory programs (shoreland, floodplain, water appropriation, work in public water, etc.). DNR's Sustainability Operational Order is currently under revision. The operational order establishes policies and procedures to reduce consumption of energy, water, and fossil motor vehicle fuels, reduce solid waste disposal through waste reduction and recycling, and increase purchasing of environmentally preferable products. The DNR has a department-wide Sustainability Team that supports the development and implementation of strategies, processes, and projects to drive a sustainable DNR operation. The primary focus is to achieve and exceed Enterprise sustainability targets established by Executive Order 19-27. These include reducing fossil fuel use in fleet, energy and water use in facilities, and greenhouse gas emissions as well as increasing recycling and purchase of environmentally preferable products. DNR also has a department-wide CLIMATE team, 'Climate Impacts, Mitigation, and Adaptation Team' which provides guidance, coordination, and leadership for identifying and implementing climate change mitigation and adaptation strategies across the DNR. Resilience – In terms of infrastructure, applicable building projects follow B3 guidelines. Other built infrastructure projects (dams, flood hazard mitigation projects, water control structures, etc.) incorporate climate predictions/resilience in their design and construction such as culvert size and floodplain delineation.
APWA-MN established an Asset Management Committee in 2021. i. Assets are essentially anything that provides value. An organization's coordinated activities to maximize the value of its assets is the organization's asset management system. Assets can be both tangible and intangible (roads and pipes - tangible vs. traffic signal timing - intangible). ii. To support APWA members that operate, improve and maintain public works and infrastructure through advocacy, education, resource development, and member engagement in the field of asset management. (National Vision) iii. In terms of infrastructure and resource assets, Asset Management is not a destination. It is a continual journey that requires routine assessment of all components that go into maximizing the value that community stakeholders are asking for from these assets. iv. Assist agencies with setting their vision for asset management and marshaling their resources to make this vision a reality. v. Committee is developing asset management standards for public agencies, creating asset management messaging and

presentations, and establishing itself as an asset management resource guide. Eagan works with residents and businesses to preserve Eagan's natural environment in many ways. i. The Water Resources team and our volunteer programs protect and preserve Eagan's 1,200 lakes, streams, and ponds. ii. Working with the Sustainable Eagan Advisory Commission (SEAC), Eagan residents appointed by the City Council. The purpose of the SEAC is to respond to the City's environmental goal by making recommendations to the City Council on local environmental sustainability and energy conservation strategies for the City's residents, businesses, and municipal operations. iii. Eagan's forestry team's efforts along with the 12,000 trees residents planted on private property have increased, keeping our air clean and healthy. iv. A new local wind energy program provides some electricity for all City facilities. v. Pavement Management Program (33 years) and Infrastructure Needs Analysis (2+ years) through Public Works Department's asset management to establish long-term infrastructure management/replacement and funding plans. vi. Hired an asset management coordinator (2020) & sustainability coordinator (2023) to help guide the processes. vii. After working with the State of Minnesota to establish an acceptable process, the Eagan City Council approved the use of Best Value Contracting to assure access to the long-term benefit and cost effectiveness of quality construction over the short-lived initial cost of Low Bid contract awards. viii. Eagan has participated in MPCA's GreenStep Cities program since 2010 and has reached the highest level, Step 5, every year since 2018. ix. Over the last few years, the City of Eagan has slowly added some PHEVs and now two BEVs to the city's fleet. x. Eagan plans to address resilience in a climate action plan which will likely include a community vulnerability assessment. This assessment will identify which areas of the community will be most impacted by future changes to environmental conditions. This assessment will allow the city to plan for resilience where it is most needed. xi. Fund efforts toward a sustainable future through new franchise fees and create a strategic plan through a collaborative process. xii. Public Works efforts include: protection of wellheads/Drinking Water Supply Management Areas; Integrated Water Plan - re-use and conservation; flood protection through modeling and design standards applying updated ATLAS-14 storm events; cyber security; 5-year Capital Improvement Plan with annual updates; meet public expectations for a high quality of life with minimized disruptions.
The Metro has enough water supply sources to grow, communities are not at risk of sudden flooding, public health is protected by keeping wastewater in the pipes and fully treating it, sewer capacity is provided as planned long in advance and not impacted by inflow/infiltration into the sewer system, the significant amount of energy to move and treat wastewater does not increase costs or increase CO2 emissions, maximum valuable resources are recovered from wastewater including energy, biosolids for agriculture, reclaimed water for aquifer recharge, and our natural water resources are swimmable, fishable and drinkable.
a. MnDOT's SMTP identifies performance measures related to asset management and resilience. The Statewide Highway Investment Plan identifies investment targets to meet SMTP goals. b. Performance Measures i. Pavement Condition: Annual percent of state highways with good and poor ride quality ii. Bridge Condition: Annual percent of state bridges in good and poor condition as a percent of total bridge deck area iii. Culvert Condition: Annual percent of highway culverts in poor or severe condition 17% (2020) ≤10% iv. System Resilience: Measure that evaluates resilience at a system level (i.e., not just individual assets) v. Asset Resilience: Resilience of assets by type (e.g., bridges, culverts, etc.) c. SMTP Strategies: i. Maximize the useful life of transportation assets while considering performance, costs and impacts to people, the environment and our economy ii. Plan, design, develop and maintain transportation infrastructure and facilities in a way that reflects and is informed by the surrounding context. iii. Improve coordination with partners on the management of all assets connected to the transportation system. iv. Preserve and improve Minnesota's natural resources and minimize harm to the environment. v. Transition the transportation sector away from

dependence on fossil-based fuels. vi. Make transportation and land use decisions that reduce total greenhouse gas emissions. vii. Protect people and communities through regional approaches to mitigate risk from the changing climate and extreme weather. viii. Increase resiliency of people and communities by adapting infrastructure to withstand the changing climate. d. PROTECT Program: funding under this new program (established in IIJA/BIL) will respond to a weather-driven, climate vulnerability. We will use internal experience or scientific data to show that a project is in a climate vulnerable place.
The City of Hutchinson integrates sustainability and resiliency into much of what we do. These principles are included in City Council core values for the environment and include: The watershed and the environment are adequately protected. Air quality is adequately protected. Resources are conserved in a manner that provides environmental and economic benefit. City-wide recycling & composting programs reduce material going to local landfills and provide economic benefits to the community. Use of alternative fuels and renewable energy is utilized where feasible and a reasonable payback period is provided. A well-maintained urban forest provides environmental benefits and contributes to community aesthetics. Green spaces are maintained in an attractive, cost-effective manner. Appropriate planning and processes are in place to effectively manage city growth.
Our contractor (generals/subs/specialty/suppliers) membership serves very diverse construction markets. Roads, bridges, wastewater, stormwater, sewer, renewable energy, commercial buildings- just to name a few. Each contractor has opportunities and challenges in the sustainability and resiliency space, and the role of AGC is to represent these complex issues at an industry level. There are many ways contractors demonstrate environmental leadership at a project or organization level, and it's our duty to be a resource to state agencies (particularly those who procure and help deliver public projects), policy makers, and our many construction partners. We frequently collect and submit comments on specifications or rulemaking determined by agencies. AGC also provides educational opportunities for members about sustainability in their means and methods. Education for policymakers about construction practices and roles is critical - advocacy is a cornerstone of our organization. We advocate for policies that increase infrastructure investment (capital/bonding, transportation revenue, grant programs, etc.), repurpose current buildings (historic tax credit), consider availability of materials and supplies, as well as evaluating total project costs and potential tradeoffs. *It's important to note that AGC neither regulates its contractor members nor dictates how a member company should perform its business responsibilities. We provide the tools necessary to succeed in all facets of construction, such as safety and the environment.
We have multiple funding sources from either the state or federal level, formula or grant funding, to support multiple renewable energy, energy efficiency, and electrification programs. We are supportive of the Climate Action Framework and participate in most of the workgroup objectives. We also support the Office of Enterprise Sustainability as it relates to sustainability for the state enterprise.
Most sustainability efforts involve funding and technical assistance for soil health and water management and related GHG emission reductions. Other sustainability efforts include support for Organic agriculture, biofuel production, and hybrid fleet vehicles for staff use. Resilience efforts mostly involve the ag marketing division through funding and technical assistance. Examples include support for local & regional food production, drought relief, and a new cooperative agreement with the USDA for resilient food system infrastructure.

Recurring Words: water, management, sustainability, climate, infrastructure, asset, resources, resilience, energy, public, funding, use, plan, assets, city, environment, natural, programs, projects, state, construction, system, environmental, efforts, transportation, resiliency, impacts, resource, strategies, quality, increase, support, community, program, level, and condition.

Are there any roadblocks to accomplishing your agency/organization's sustainability or resilience goals?

Technically sound and economically feasible solutions and practices. Dedicated funding. An integrated and coordinated statewide plan across all sectors.
Consistent funding is a challenge as will ensuring consistent legislative commitment to climate work.
Funding, staff time, technical expertise.
Lack of coordination across external jurisdictions, both public and private. Resistance to change. Political differences between desired partners. Lack of understanding the value of effort by constituents and leaders. Lack of staff resources or funding. Lack of proactive thinking, only reactive, that misses coordination opportunities with others.
Information and data on climate risk and changing weather patterns are essential to modeling the risk of flooding and over-capacity storm and sanitary sewer systems. Funding to develop GIS infrastructure data to assess risk and prioritize investment across the densely built metro area. Funding and legal authority to recover additional resources from wastewater, including thermal energy that could be used for district heating.
MnDOT is in the process of developing a Resilience Improvement Plan (also a federal requirement under the PROTECT program), which is intended to identify increased risks due to climate hazard exposure on the transportation system. The preliminary list of hazards includes extreme heat, heavy precipitation and flooding, winter storms, freeze-thaw frequency, landslides and rockfalls, and wildfires. There may be challenges with inventorying the system, which requires data from local partners and creating a dynamic way to share information.
Staff dedicated specifically to these goals are limited so we rely on a variety of staff to incorporate these concepts into our day-to-day operations. Not all staff are going to be fully committed to these ideals, so implementation happens first where it is embraced. Folding these goals into daily operations and city policy is effective when a good business case is made. Standalone renewable projects are more challenging due to capital demands from new and existing utility infrastructure needs. Shifting financial resources without increasing the total available only dilutes what has typically been invested into repairing or building new utility infrastructure. We are seeing a trend of doing less with the same amount of money.
It's important to remember that AGC members do not decide what to build or where to build projects. (The exception being their own offices/business.) Those decisions are made by project owners at all levels of government and private owners or developers. Contractors have direct control over the means and methods of the construction process. 1.) Permitting. The permitting process needs to be streamlined to ensure more predictable timelines and expectations. Delays lead to increased project costs and inefficiencies. 2.) Utility infrastructure and mapping of underground utilities. Accurate mapping and locating of underground utilities are critical for efficient maintenance, repairs, and safety. Underground utilities reduce environmental footprints, are less vulnerable to natural disasters, increase service reliability, optimize land use, and minimize risks to workers and the public when accurately installed and located. 3.) Well-intended policies can have unintended consequences in the market on materials and cost, taking up more captured revenue and resources. Policies can also have disproportionate effect on small businesses and minority-owned businesses, pushing them out of certain markets or ability to reinvest in capital.
Funding and coordination with various efforts. Potential duplicative efforts.
Sustainability and resiliency work is spread across multiple divisions and staff and is not very coordinated. The legislature passed funding for the MDA to hire a Climate Coordinator in 2025 or 2026, which would help greatly with both internal and external coordination.

Recurring Words: funding and staff.

Does your agency/organization have a sustainability or resilience mission? If so, what is it?

Sustainability and resiliency are fundamental to the design and functionality of any infrastructure undertaking.
Maintaining a high quality of life. Maximizing public system value, life expectancy, and protection of public.
Partnerships between local, regional, state, federal and private sector are essential to accomplish meaningful gains. Taking a long-term viewpoint is critical. Risk management, protecting human life, avoiding costly infrastructure failure, being proactive.
a. It would be helpful for the mission to describe how the most vulnerable communities and people will be prioritized. b. In this context, it would be helpful to define infrastructure resilience as the way to increase the built environment's capacity to mitigate both the climate hazards observed by the DNR's Minnesota State Climatology Office and projected changes as produced by the climate science community. c. How asset management can provide the foundation for resiliency efforts.
Balance funding for existing infrastructure needs with the ever-changing world of regulations and new directives such as MN's Climate Action Framework. Integrate resilience and sustainable concepts into all that we do in a responsible way so new problems are not created due to competing financial constraints.
-partnerships between public sector, private sector, and workers -practical recommendations.
I would like this task force to include food and agriculture infrastructure in its mission statement. Often when people talk about infrastructure, they mean roads, broadband, sewers, etc. But food is often overlooked, even though it's a basic need. The COVID pandemic highlighted the vulnerability of our food supply chains and infrastructure, such as food processing facilities and distribution hubs, which are critical to ensuring our state's food security.

Recurring Words: infrastructure and food.

Is there anything you'd like to explore during our task force meetings? Are there any individuals or organizations you would like to see present?

Overlaps and synergies between the work of various agencies and how there could be integration - both strategic and operational. It would be good to have Minnesota Public Facilities Authority present on how sustainability and resiliency criteria are incorporated into the distribution of funds from the State Revolving Fund for wastewater and drinking water projects.
I like to coordinate with ongoing efforts. Evaluating how ongoing efforts come together ensures that newly created things are filling gaps and not creating unintended consequences. I mentioned the Climate Action Framework, around which there is a ton of work ongoing in many areas. I am sure there are other ongoing efforts we should know about as we look to create something new.
Mn DNR went through asset inventory; I'm happy to share the presentation I shared at the Sustainable Infrastructure Policy Committee on Feb 15, 2023.
Michigan and Colorado reports; maybe someone from MN Climate Action Framework.
Lessons learned from NYC, Houston, etc. would be instructive through the eyes of public works leaders who have been through significant events - how prepared they were, how they responded, what they learned, what they are doing now, what they wish they would have done in advance.
a. The DNR's Minnesota State Climatology Office offers a presentation describing how Minnesota's climate is evolving. b. The Research Director at the UMN Center for Sustainable Building Research offers an overview of climate change's impacts to Minnesota's critical infrastructure. c. The Director of the UMN's Climate Adaptation Partnership (UMCAP) offers a presentation of multi-sector adaptation strategies that showcase data, examples, and context for increasing infrastructure and community resilience. By November the UMCAP's state-funded Future Climate Hazards data will be available, and the director will be able to give insights into what Minnesota's climate is projected to be at the middle and the end of this century. d. other states' efforts with regards to resiliency and asset management collaboration efforts. e, there is national research (Transportation Research Board) that performed a scoping study on an all-hazards risk and resilience framework for transportation infrastructure. That scoping study has led to the development of an all-hazards risk and resilience manual for state departments of transportation. This multi-year, multi-phase effort will equip state DOTs with a manual, tools, and resources for better quantifying resilience risk and assisting in prioritizing resources to manage and mitigate the highest risks to the transportation system.
It would be helpful to have a repository of what agencies are currently doing in this space and how we can maximize agency time and resources. Permitting would be at the top too. I would recommend not getting in the weeks on construction materials and emissions because there are two other task forces with that focus.
Funding - Request that federal agencies work to simplify and streamline the application process. - More state resources to assist LGUs on applications. - Investigate even more ways to form partnerships with communities who may have been on the sidelines until now. Duplication of effort - It is not clear to me how the task force will consider and align with the large amount of work on sustainability and resilience that is already occurring throughout the state-by-state agencies, Tribal Governments, colleges, LGUs, and NGOs.
I would like to learn more about the work of the others on the task force. I'm young in my career and relatively new to the MDA, so I don't have a good grasp of what other agencies and organizations do regarding infrastructure, and how we might work together.

Recurring Words: state, climate, work, agencies, efforts, infrastructure, and resilience.

Are there any other things about infrastructure resilience and/or sustainability that you would like to mention that you haven't already?

There is a strong environmental justice & health equity correlation with sustainability and resiliency. Those groups and areas that are disproportionately impacted in other ways are also often where the infrastructure is the most vulnerable.
If possible, it would be great to avoid duplicate or conflicting efforts with other state teams such as the Sustainability Steering team. Also, it would be great to use consistent definitions across these state teams; OES has a sustainability definition approved by the Sustainability Steering team that is similar to the UN definition.
Long-term investments for overall cost savings; may have additional upfront costs, but overall costs will be reduced.
Resilient transportation infrastructure is critical to connecting people and communities throughout the state. Paraphrased from our statewide multimodal plan: faced with an extensive, rapidly aging system and increasing construction costs, transportation partners in Minnesota are struggling to keep the system in good condition. Challenges to prevent agencies from reaching good condition can look like out-of-service transit vehicles, gaps in sidewalks, bridges in need of repair and poor pavement quality requiring more frequent maintenance, resulting in traffic impacts to the traveling public. Not only do deficiencies result in rough roads, sidewalks that fail to meet ADA standards, etc., deterioration can make the system more vulnerable to risks from things like climate change and extreme weather. Climate change will likely disrupt critical systems, increase operating costs, exacerbate funding gaps and cause spillover effects for our communities, underserved and vulnerable populations, and the economy. Few infrastructure assets will be left untouched by the changing climate, and none can be ignored entirely. However, using risk-based approaches and a lens on equity in defining investment needs present opportunities to build back better to adapt the transportation system to meet the challenges of climate change and extreme weather events.
The federal HIFLD critical infrastructure database needs data quality improvements and updating. The number of jurisdictions involved makes coordinated planning more difficult. Even larger LGUs may lack staff capacity and funding to manage multiple projects and work with neighbors in this space. Working with the RDCs may be one option to mitigate that challenge.
While infrastructure tends to be a bi-partisan issue, sustainability and climate resiliency are politically charged topics, unfortunately. This is particularly true in agriculture and among farmers, so just something to keep in mind.

Recurring Words: sustainability, infrastructure, climate, costs, system, vulnerable, state, transportation, critical, and change.