



TOWN OF OKOTOKS

ENVIRONMENTAL MASTER PLAN PROGRESS REPORT

FEBRUARY 2020





PROGRESS REPORTS

Town administration monitors progress towards meeting the goals, targets, strategies and activities, and provides annual reports to Council, which are available to the public on the Town website. The annual Community Report, which is published and delivered to households in spring, is another way that progress is reported to citizens. Reporting provides greater accountability, transparency and understanding of the strategic goals, progress and accomplishments. Council and administration's regular review allows us to evaluate how we are performing towards our strategic goals and to make adjustments as necessary to realign for success.

TOWN VISION

The Town of Okotoks fosters a culture of resiliency - where people, businesses, ideas and sense of community thrive. Grounded by the Sheep River valley and supported by thoughtful planning and design, a strong local economy and a vibrant civic culture, Okotoks offers exceptional quality of life at every stage of life. Respect for each other and the natural environment makes Okotoks home.

TOWN COMMITMENT

The Town of Okotoks is committed to engaging the community in environmental sustainability beyond the scope of the EMP. **Okotoks' Environmental Education Centre** opened in the fall of 2017, and provides educational information and visual presentations of Okotoks' natural ecosystems, with a current feature on Okotoks' watershed.

GUIDING PRINCIPLES

The following guiding principles are the basis for long-term planning for our community and were developed by citizens.

1

Livable Okotoks

4

Active Lifestyle

2

Vibrant Civic Culture & Heritage

5

Environmental Stewardship

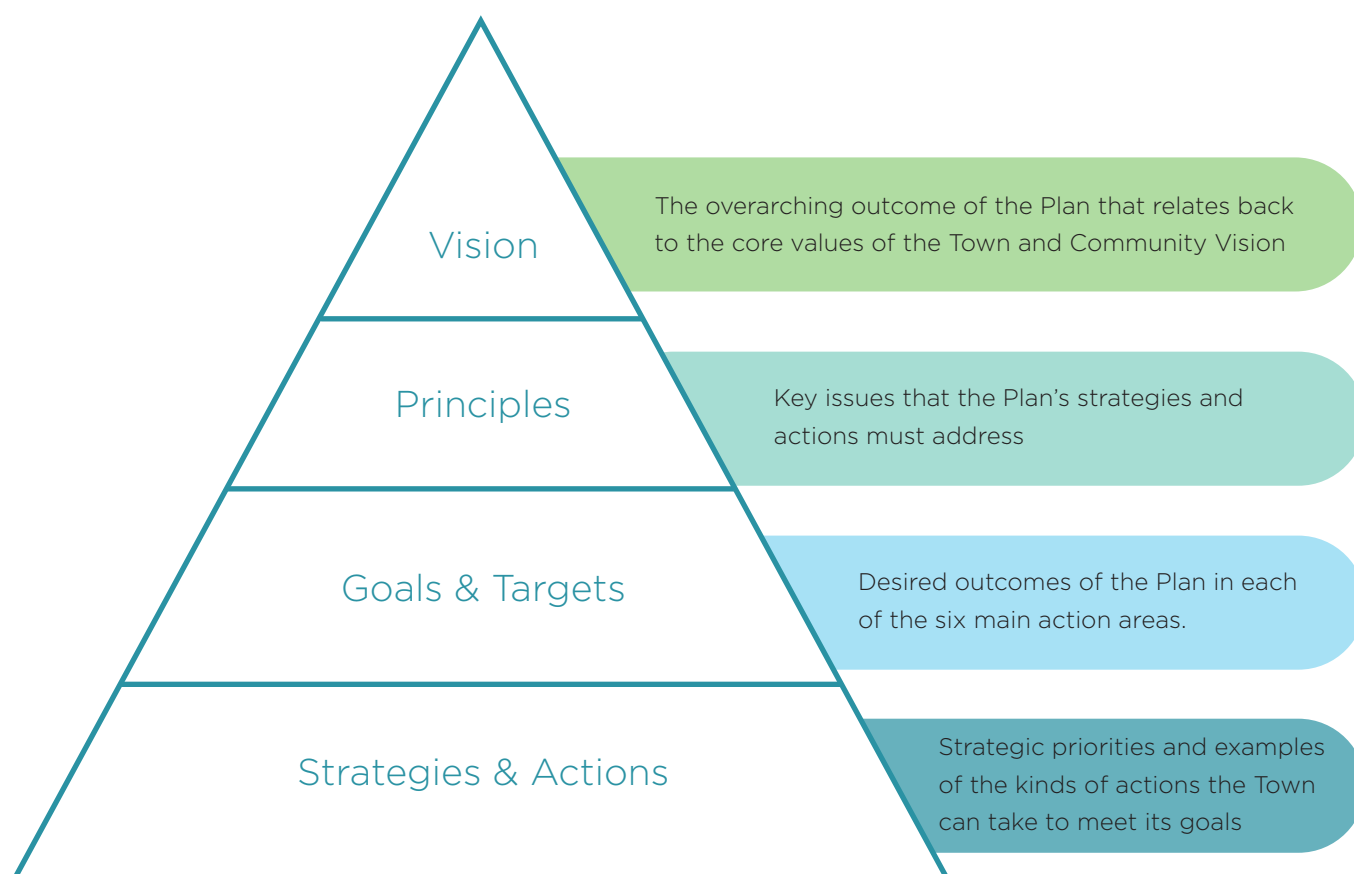
3

Inclusive Neighbourhoods

6

Local Economy

TARGETS & MEASURES



Goals

To create more defined measures of success, the environmental vision was refined into specific goals within each key action area. These overarching action areas and their associated goals emerged out of public and stakeholder consultation, and were finalized through an iterative consultation process with the Steering Committee. Each action area has a dedicated section in the Plan that outlines the strategies that will be taken to achieve these goals.

Targets

To help gauge progress towards achieving these environmental goals, the Town of Okotoks has set a number of aspirational targets. These have been established in comparison to other leading municipalities across North America, and will be useful in establishing an overarching intention with respect to the level of the town's ambition. Each key action area in the Environmental Master Plan outlines one or more key aspirational targets that will be refined as data is collected over time. Once enough data has been collected to establish a baseline of how Okotoks is performing in each action area, the Town will be better equipped to identify more specific and suitable targets. Each aspirational target is designed to help Okotoks achieve a sub-goal. Together, achieving each of the aspirational targets will help the Town reach its overarching goals.

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2019

PROGRESS HIGHLIGHTS

1 ECOSYSTEMS & AGRICULTURE

Prioritize and protect the connectivity and integrity of local ecosystems



Key Strategies

1. Develop and implement a comprehensive Ecosystem and Biodiversity Strategy
2. Forge partnerships for ecological protection
3. Develop and implement a town-wide green network strategy
4. Foster a regional systems of ecological parks and areas
5. Encourage the naturalization of private properties
6. Increase the community's understanding and connection with nature
7. Reduce light pollution
8. Encourage local food production
9. Provide education and support for local and regional sustainable food choices and practices

Progress Highlights

- An additional 28.8 acres of sensitive river valley land was purchased by the Town and a new river valley day use area (Waller Park) was developed in 2019.
- Several key policies within the draft Municipal Development Plan look to protect and enhance existing ecosystems and their biodiversity through land development requirements, land use designation, enhanced flood hazard area development restrictions and wetland protection measures to protect the community and its infrastructure.
- Annual expansion of Okotoks' urban forest, using alternate ground covers on public lands and offering xeriscaping rebates for drought tolerant plants raise awareness and involve citizens.

Next Steps

- An innovative Natural Asset Inventory project is underway (in partnership with leading national and provincial non-profit environmental asset organizations), to create a new natural infrastructure integrated asset management programme that will serve as an exemplar pilot project in Alberta. The project is anticipated to be completed in June 2020.

2 LAND USE & URBAN DESIGN

Create compact, vibrant and inclusive communities that reduce our environmental impact and improve quality of life

GOALS

Increase the diversity of land uses and innovative housing types, including high quality, higher-density, affordable options

Integrate various modes of transportation into our urban fabric, including active transportation and public transit

Protect and actively promote ecosystem integrity and connectivity in new and existing developments

Key Strategies

1. Implement holistic environment requirements for new development
2. Ensure all new neighbourhoods are designed as complete, transit-oriented communities
3. Enhance local ecosystem integrity and biodiversity through addition of green infrastructure in the urban environment
4. Increase the number of diverse building forms and functions in new and existing neighbourhoods
5. Increase green building requirements for new construction

Progress Highlights

- The new MDP policies will address planning and urban design for active transportation, transit-oriented communities, density targets, diverse housing types, and development in the flood zones.
- The Corporate Land Strategy project is underway and will guide decision-making for efficient land utilization through shared and compatible uses.

Next Steps

- The LUB rewrite plans to promote shared parking and diverse building forms and functions, and increase green building requirements for new construction.
- Upon finalization of the new MDP, the Joint Use & Planning Agreements with the School Authorities will be aligned and updated.



3 ENERGY, EMISSIONS & AIR QUALITY

Minimize the generation of greenhouse gas emissions and air pollutants from all sources

GOALS

Significantly improve the energy and emissions performance of new and existing buildings & facilities

Reduce emissions from transportation systems

Enhance the ratio of energy generated or purchased from low-carbon, renewable sources

Improve indoor and outdoor air quality



Key Strategies

1. Develop and implement a comprehensive Renewable Energy Strategy to encourage, support and implement new forms of community renewable energy generation
2. Work with partners to identify appropriate alternative space heating fuels and technologies
3. Improve access to energy and emissions performance of existing buildings
4. Require higher levels of energy performance in new building construction
5. Assist and incentivize the building industry and homeowners in meeting higher energy performance levels in new and existing buildings
6. Foster the use of non-automotive, active modes of transportation
7. Improve access to public transit options, within Okotoks and between neighbouring municipalities
8. Support the uptake of low-emissions vehicles
9. Support car and ride sharing
10. Create pedestrian-friendly and emission free environments
11. Develop and implement measures to improve indoor and outdoor air quality

Progress Highlights

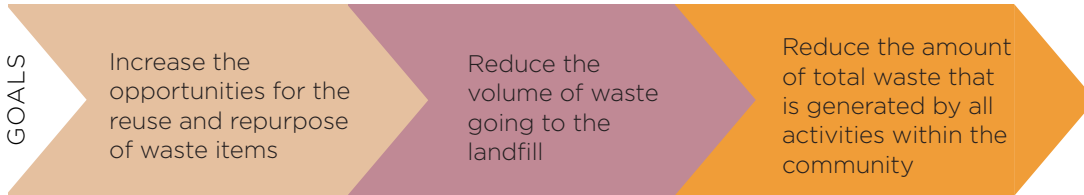
- A baseline greenhouse gas (GHG) inventory was completed in 2019.
- A new local on- demand transit service was implemented in late 2019 and has been well received by the community.
- Home energy and water assessments were offered to households.
- Largely funded with provincial grant funds, a 500kw solar system was installed at the Operations Centre and will be operational in early 2020.
- To promote active living and reduce vehicle usage, snow clearing of the primary pathway system is completed 7 days per week.
- The Town applied to ATCO for funding on the next phase of their Peaks to Prairies Electric Vehicle Charging Station Project which focusses on longer distance travel of electric vehicles.
- Two electric bicycles were well utilized by staff for travel between municipal buildings, an electric 'ranger' vehicle was purchased for Parks and the Town-owned transit vehicles delivered for spring 2020 have hybrid technology.

Next Steps

- In 2020 the Town will complete a Climate Change Action Plan (CCAP) to identify mitigation and adaptation strategies.
- In 2020, design of the next phase of the downtown revitalization project will commence and include pedestrian-friendly streetscapes.
- With the creation of an updated LUB in 2020, relaxation of requirements to facilitate green building construction will be explored and potential requirements for EV chargers in mixed-use commercial districts and multi-unit residential developments.

4 WASTE SYSTEMS

Dramatically reduce the amount of waste that is generated and disposed



Key Strategies

1. Encourage responsible waste reduction practices in business and manufacturing
2. Explore prohibiting select single use items
3. Encourage practices and opportunities to share or reuse materials and products
4. Provide continuous education to reduce water production and improve waste diversion rates
5. Enhance the scale and efficiency of regional waste collection, processing and product delivery
6. Further waste diversion practices and services within the residential sector
7. Advance waste diversion practices in the industrial, commercial and institutional (ICI) sector
8. Dramatically improve the diversion of construction and demolition (C&D) waste from landfill
9. Implement a community-wide public space and event waste diversion program
10. Explore options for deriving energy from waste

Progress Highlights

With the help of a consultant, the Town completed a review of current waste management practices in the foothills region and identifies opportunities and recommendations. The report was provided to Council in fall of 2019 with Council directing administration to support implementation of regional opportunities. Administration is also working closely with local school boards to implement holistic three-stream waste programs in all Okotoks' schools. The Foothills Regional Landfill offers a lower rate if construction and demolition materials (dry wall, clean wood, concrete) are separated.

Four Repair Café events were offered in 2019 to encourage reuse by repairing small appliances, bikes, etc. Volunteers provided time and skills to repair goods at these popular events. The conservation education program continues to offer numerous education opportunities to children, youth, adults and businesses regarding waste sorting and reduction.



Next Steps

- Pending the completion of Alberta's "extended producer responsibility" policy, that is to require large producers of consumer products to help manage or fund the handling and disposal of products and packaging they generate, Okotoks will consider local policy direction that is also in alignment with our new Municipal Development Plan.
- Regional waste devliery options will be presented to Council in 2020.

5 WATER SYSTEMS

Reduce water demand and consumption of drinking water and improve the water quality of our watershed

GOALS

Enhance the efficiency of the water system by increasing the capture and reuse of rainwater, stormwater, treated effluent and grey water

Form regional partnerships to protect and manage the regional watershed

Protect and improve water quality through riparian and wetland production and by reducing overland runoff and nutrient loads



Key Strategies

1. Implement an advanced water reuse strategy
2. Develop an aggressive peak water demand program
3. Increase water conservation requirement and incentives
4. Increase information and education on water use and opportunities for conservation
5. Encourage and/or require low-water landscaping practices
6. Collaborate regionally on source water enhancement and watershed protection
7. Decrease sources of contamination in the Sheep River
8. Enhance efficiency and quality of wastewater treatment process

Progress Highlights

Continued efforts to decrease water consumption and infrastructure improvements resulted in the ability to push back the timeline for supplemental water needs for approximately 9 years based on a growth rate of 1-2% annually. The minimum water consumption volume threshold for the third tier of the residential utility rates came into effect January 1, 2020. An internal water tracking and accountability model was completed to enhance zone isolation detection to reduce leaks.

The first phase of wastewater treatment plant (WWTP) upgrades commenced in 2019. Administration has been actively participating in Alberta Environment and Parks (AEP) consultation on their draft Stormwater Reuse Policy which is expected to be released in 2020. The Town hosted a regional water reuse workshop in fall 2019 to discuss public perceptions and barriers to implementation.

The Nexen raw water well was connected to the irrigation at Seaman Stadium and now supplies all irrigation water to Riverside Park and ball diamond. This same water is utilized for operational processes and tree watering on public lands and for commercial use on private property and is included in the Rates & Fees Bylaw.

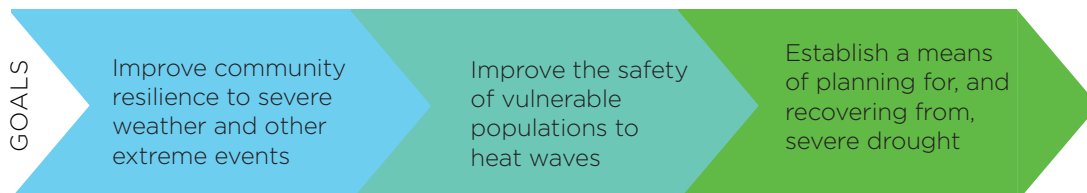
Together with our partners, the University of Calgary and Source 2 Source, the Town has installed storm water capture and reuse system for irrigation at the campus plaza adjacent the new Meadow Ridge School.

Next Steps

- Substantial upgrades to the wastewater treatment plant (WWTP) will be implemented over the next few years.
- Implementation of flow meters & alarming for wastewater collection system to prevent system leakage and enhance system resilience.

6 CLIMATE ADAPTATION & RESILIENCE

Improve Okotoks' ability to adapt to the impacts of climate change



Key Strategies

1. Develop a Town Climate Change Action Plan
2. Mitigate the impact of flooding on community assets and infrastructure
3. Enhance and protect existing eco-assets that provide buffering from climatic events

Progress Highlights

- A GHG inventory was presented to Council in November 2019 where benchmarks and targets were established.
- A Natural Assets inventory project began late 2019 and will be complete in mid 2020.
- A provincial grant was received for climate related educational signage inside the Environmental Education Centre. The new signage celebrates the Town's environmental features and habitat protection practices.
- The new Municipal Development Plan includes policies on managing growth and climate change and community resilience.

Next Steps

- A Climate Change Action Plan and natural asset inventory will be complete in 2020.
- In 2020, an outdoor component to the Environmental Education Centre will see the installation of interpretative signage related to climate change and alternative groundcover demonstration plots to promote water conservation.
- The Land Use Bylaw will address increased building requirements to align with the MDP.



OFF-TRACK INITIATIVES AND RECOVERY PLANS

The Town administration has put the following into place for off track initiatives.

1 Ecosystems & Agriculture

- The planned creation of a community garden in an existing neighborhood in south Okotoks did not proceed due to community opposition
- A wetlands policy and tree bylaw research will be undertaken once the MDP is approved, to align wetland protection and urban forest management with industry best practices.
- The LUB rewrite will set the stage for green building infrastructure such as green roofs and walls. Incentives for existing buildings will be explored after completion of the LUB.

2 Land Use & Urban Design

- A trails master plan has been deferred until 2021 to better align with the need for revision of the transportation plan to be expanded to a comprehensive mobility plan.

3 Energy, Emissions & Air Quality

- Due to current economic conditions in Alberta, an incentive program to encourage commercial or residential construction to receive higher levels of construction, including solar panels, program has been delayed.
- Exploring options for deriving energy from waste has been deferred until after regional waste solutions are prioritized and implemented.
- Regional transit initiatives are deferred to allow focus on operating the new local transit system.

4 Waste Systems

- Council approved an extension to the implementation of the Industrial, Commercial, and Institutional (ICI) waste program due to the current recycling market climate and the issues with facilities for managing organics. Okotoks continues to encourage the Foothills Regional Landfill Commission to effect more advanced construction and demolition programs.

5 Water Systems

- Development of an integrated storm water management plan that identifies a comprehensive approach to mitigating impacts of pollutants on Sheep River.
- While mapping of impermeable areas has been largely completed, research into the potential for variable storm water utility based on sites' impermeable surface areas is planned for 2021.
- The requirement of the inclusion and integration of green infrastructure in new developments to slow and pre-treat storm water will be considered upon completion of the MDP and development of the LUB.

6 Climate Adaptation & Resilience

- Initiatives are on track.



