

# Public Works 2021 OPS Budget

## DEPARTMENT OVERVIEW

Public Works maintains and manages the County's road network of over 2,000 km. The road infrastructure includes gravelled roads, paved roads, bridges, and drainage systems. A team of 35 employees includes management, administrative support staff, light and heavy equipment operators, truck drivers and seasonal labourers. Maintenance activities comprise a large portion of the budget and includes grading, gravelling, brushing, and winter snow clearing operations. Capital projects include major upgrades to gravelled roads, paved roads, and bridges.

## FINANCIAL

	Budget 2020	Budget 2021	% Variance
Total Expenses	\$28,881,797	\$38,596,540	33.64
Total Revenues	\$18,143,935	\$28,033,509	54.51
<b>Total Tax Support</b>	<b>-\$10,737,862</b>	<b>-\$10,563,031</b>	<b>-1.63</b>

Required Tax Support by Department:

Department	Budget 2020	Budget 2021	% Variance
3201 - Administration	-\$598,165	-\$686,609	14.79
3202 - Fleet Management	-\$455,657	-\$613,458	34.63
3203 - Funded Projects	-\$735,000	-\$735,000	--
3204 - Patrols	-\$2,574,000	-\$2,574,000	--
3205 - Maintenance	-2,100,995	-\$1,914,920	-8.86
3206 - Road Construction	-\$1,746,500	-\$2,046,500	17.2
3207 - Paved Roads	-\$377,800	-\$342,800	-9.3
3208 - Gravelling	-\$2,149,745	-\$1,649,744	-23.3

The overall – **1.63 %** (-\$174,831) 2021 budget variance from 2020 reflects the following changes as per 2020 Strategic Planning for 2021:

- Reducing the Gravelling program: a net savings of \$500,000
- Cancelling the Dust Control Subsidy: a net savings of \$110,000
- Reducing Level of Service: a net savings of \$175,000
- Increasing the Road Construction Budget: a net cost of \$300,000
- Reducing the Brushing Maintenance Budget: a net savings of \$50,000

## KEY OBJECTIVES

With the budget cuts, the primary objective of Public Works is to work within the available budget. This will mean a reduction to the existing level of services for winter operations and regular road maintenance activities.

## CHALLENGES

Challenges include weather, public expectations, aging work force, inflationary costs and available resources. This department is beyond the inflection point where existing funding will not maintain the existing level of services.

Administration is not able to meet the reduction in engineering costs. For 2021, the Engineering Tech will not be hired as Administration needs to analyze outside engineering to determine what the actual cost savings would be.

# Public Works 2021

## 3201 – PW Administration OPS Budget

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### **DEPARTMENT OVERVIEW**

This department is created to deal with management and support staff overhead, and to facilitate the purchase and sale of Fleet capital equipment. Public Works staff includes the Director of Public Works, Manager of Operations, two Foremen, and three administrative support staff that undertake several management and administrative duties not directly attributable to specific Public Works activities. These include preparation of agenda items, capital purchasing, management and planning, engaging the public and running various department programs such as buried facilities locating, GIS and Web Map updates, PW Call Center, Asset Management, Road Ban Program, Road Use Agreements, Utility Agreements, timesheet processing and other essential activities necessary to handle the daily demands placed on Public Works.

### **FINANCIAL**

Revenues include provisions and charges under Road Use Agreements, the sale of fixed assets (Fleet Vehicles and Equipment), and a transfer of funds from the Fleet Capital Reserve. Fleet proposes to purchase vehicles and equipment totalling \$2,014,000 as part of the 2021 Fleet Capital plan.

Expenses include all the salaries for Public Works management and support staff and the purchase of vehicles, machinery, and equipment (Fleet Capital).

	<b>Budget 2020</b>	<b>Budget 2021</b>	<b>Year over Year Variance</b>
Total Expenses	\$2,663,546	\$3,053,109	14.63%
Total Revenues	\$2,065,381	\$2,366,500	14.58%
Net Tax Support	-\$598,165	-\$686,609	14.79%

The 14.79% net increase to the 2021 Budget reflects the increase of transfer to reserves. Budget 2021 also had interdepartmental reallocation of costs and assignments, and revenue drawn from the Fleet Capital Asset Reserve to fully cover costs associated with the replacement of existing vehicles, machinery, and equipment.

### **KEY OBJECTIVES**

Key Objectives for this department include enhancing program initiatives such as timely GIS and Webmap updates, continual updates to the Rural Road Infrastructure Assessment (RRIA), increasing efficiencies in use of internal software programs and managing public enquiries.

### **CHALLENGES**

Staffing is adequate regarding the current and planned task assignments, therefore the challenge is to further develop program initiatives so that ultimate efficiency is achieved.

# Public Works 2021

## 3202 – PW Fleet Management OPS Budget

### DEPARTMENT OVERVIEW

The Fleet department is responsible for the overall control of machinery and equipment used by other County departments. Equipment is rented out to recover costs such as overhead and operating as well as capital recovery. The management of the Fleet includes daily and scheduled maintenance, annual review to establish monthly and hourly rates for capital and operating recovery, inventory control, purchasing of parts, fuel and oil, and management of yard deliveries. The Fleet department is comprised of a Shop Foreman, a Costing Technician, one Heavy Duty Mechanic, one Light Duty Mechanic and a Shop Hand.

### FINANCIAL

Revenues include the recovery of operating and capital funds via the C10 equipment rates. The expected capital recovery for 2021 totals \$1,423,371 and the operating recovery is expected to total \$1,962,471. Overall, the net expected revenues for rental of the Fleet equipment is \$3,385,842 which is significantly lower than 2020 due to budget cuts in 2021. Expenses include salaries for the Fleet staff. Overall, there are increases to all facets of the department such as supplies, fuel and oil, external repairs, tires and grader blades.

	Budget 2020	Budget 2021	Year over Year Variance
Total Expenses	\$4,454,000	\$4,018,298	-10.84%
Total Revenues	\$3,998,343	\$3,404,840	-17.43%
Net Tax Support	-\$455,657	-\$613,458	34.63%

The 34.63 % variance from 2020 is due to the interim budget not balancing for C10 equipment charges. This has been adjusted accordingly. Due to a significant reduction in the work effort proposed from Public Works, equipment revenue is projected to be down by 18% with an equivalent savings in operating costs.

### KEY OBJECTIVES

The Fleet department has made strides in improving its inventory control, management, and scheduling of equipment repair. A key objective in 2021 is the implementation of the Asset Management System which includes a comprehensive preventative maintenance program. On a staffing level, Fleet has a directive to hire a **0.6 FTE Heavy Duty Mechanic** for 2021. This position will support Fleet Services in the Wetaskiwin and Winfield shops in the repair of County equipment.

### CHALLENGES

A major directive of Fleet is to be cost neutral, whereby all department costs are recovered by C10 charges. The capital recovery program is working as intended as the dollars placed in Reserve are expected to cover future capital purchases. The major challenge with Fleet is recovering operating costs. The operating costs include all those costs necessary to run the department inclusive of salaries, repairs, fuel, tires, and overhead. The net tax support proposed for this budget reflects the fact that Fleet is not cost neutral. Increases to C10 operating rates will have a direct cost to the User's of the fleet equipment.

# Public Works 2021

## 3203 – PW Funded Projects OPS Budget

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### DEPARTMENT OVERVIEW

This department deals with capital projects of various road and infrastructure projects. This includes funding of engineering studies for future capital upgrades, bridge replacements, road and stormwater upgrades, special projects and gravelling in Division 7 as part of the Clearwater County revenue sharing agreement.

### FINANCIAL

Revenues for this department come from grants, Clearwater revenue agreement, transfers from reserves and annual tax support. Total projected revenue for 2021 is \$20,558,829 with \$17,271,519 coming from grants such as ACRP, FGT, STIP, MSP, MSI and DRP.

Expenses include significant capital projects such as the G3 Resource Road (paving and intersection treatment), several bridge replacements and repairs, the beginning of Hamlet Infrastructure improvements in Winfield, Gwynne and Mulhurst, DRP recovery projects (2019 West Flood), road and bridge upgrades to Range Road 11 (Norris Beach Rd) and the SE Stormwater Flood Mitigation, a collaborative effort between the County and Ermineskin Cree Nation (ECN).

	Budget 2020	Budget 2021	Year over Year Variance
Total Expenses	\$8,985,047	\$20,558,829	228.8%
Total Revenues	\$8,250,047	\$19,823,829	240.3%
Net Tax Support	-\$735,000	-\$735,000	-- %

The --% variance from 2020 reflects efforts to maintain a zero percent increase in tax support. This is achieved by maximizing available grant funding, contributions from outside sources (SV IDP, ECN) and withdrawal from reserves.

### KEY OBJECTIVES

The key objective for this department is planning. Planning initially starts with Strategic Planning sessions and identification of key initiatives and concepts followed by development of strategies and framework, commissioning of engineering studies, establishing project scope and expected costs, and determining new sources of revenues.

### CHALLENGES

As grant monies are a major contributor to this department, challenges remain in identifying available sources and seeking out other “less attainable” sources. Certain grants are well established and allocated to the County provided the County has eligible projects that meet grant criteria. These include MSI and FGT. Other grants may be available, but to obtain them, the County is required to apply on a project by project basis with no guarantee of success. These include STIP, ACRP and DRP.

# Public Works 2020

## 3204 – PW Patrols OPS Budget

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### **DEPARTMENT OVERVIEW**

The County is served by twelve (12) Patrol Areas. A Patrol Area is maintained by a motor grader and operator and is primarily dedicated to gravelled roads. Each Patrol Area is approximately 165 km in total road length. Of the 12 Patrol Areas, the County uses internal staff and equipment for 8 areas with the other 4 handled by contract operators. The major activities of a Patrol operator are blading and shaping gravelled roads during the non-winter months and providing snow plowing and snow removal services in winter months.

### **FINANCIAL**

Revenues are 100% tax support.

Expenses include salaries, equipment costs and contracted third party costs.

	<b>Budget 2020</b>	<b>Budget 2021</b>	<b>Year over Year Variance</b>
Total Expenses	\$2,574,000	\$2,574,000	- -%
Total Revenues	\$ - -	\$ - -	- -%
Net Tax Support	-\$2,574,000	-\$2,574,000	- -%

### **KEY OBJECTIVES**

A key objective for this department in 2021 is continue specialized grader training of County operators by a third-party consultant. The main intent of the grader training is to standardize grading and maintenance techniques of the gravelled roadways during the spring, summer and fall seasons and standardize methods of snow plowing and removal to preserve gravel.

Grader operators are expected to contribute to gravel road maintenance by identifying roads needing spot road repair, gravelling, ditching and drainage improvements, lip pulls, downed signs, bridge crossings and any other maintenance needs they may observe while on the roadway. In 2021, Public Works will engage 2 more County operators in third-party training. This to provide new perspectives in grading and maintaining roads and to further promote efficiencies and performance.

### **CHALLENGES**

The challenges are many as the Public demands for high quality driving surfaces on gravelled roads is ever increasing. A grader operator must deal with traffic, available surfacing gravel, subgrade conditions, drainage conditions, grass on shoulders, encroaching trees and shrubs, obstacles within right of way and weather.

Staffing is adequate. The balance of internal forces and third-party contractors appears to be maintaining an acceptable level of service. The work within each Patrol Area is fairly balanced, however some areas do require more work which is primarily related to the quality of the roadway and traffic.

# Public Works 2021

## 3205 – PW Maintenance OPS Budget

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### DEPARTMENT OVERVIEW

This department deals with many activities that includes maintenance of paved roads, maintenance of gravelled roads, culverts and drainage, deep subgrade repair, intersection and road alignment corrections, signage, snow plowing and sanding, roadside cleanup, dust control and brushing.

### FINANCIAL

Revenues are limited and are provided by road use agreements, sale of services (e.g. dust control), sale of materials and supplies to other agencies, Summer Village IDP recovery, and small amounts from grants and reserve transfers.

Expenses are largely comprised of labour, materials, and equipment charges. Approximately \$175,639 is budgeted towards third party contractors that includes snow removal in the Hamlets and specialized tree removal and brushing services.

	Budget 2020	Budget 2021	Year over Year Variance
Total Expenses	\$2,668,399	\$2,522,170	-5.5%
Total Revenues	\$567,404	\$607,250	7.0%
Net Tax Support	-\$2,100,995	-\$1,914,920	-8.86%

The -8.86% variance from 2020 reflects interdepartmental reallocation of costs and assignments and reduction in the level of services. The decrease from Interim Budget includes the reduction in brushing in the amount of \$50,000. Several activities within this business unit have been reduced to keep expenditures down. The 1/3 subsidy for the Dust Control program has been removed. This will add \$110,000 in revenues for the department.

### KEY OBJECTIVES

Key objectives include improved efficiencies in current maintenance programs. This includes enhancements to ditching and drainage, spot road repairs, intersection repair, road re-alignments, targeted brushing, and signage. Targeting maintenance activities should have an overall benefit to the demands for gravelling, pavement patching and pavement upgrades. If a road structure performs better under poor weather conditions or increased traffic loading, then the need for expensive repairs and upgrades can be delayed or minimized.

### CHALLENGES

The major challenge for this department is resources. The County has the labour and equipment to undertake additional work to improve road structures and systems. The required maintenance and improvements throughout the County are daunting. There are over 200 intersections, each requiring work. There are thousands of culverts to maintain with several hundred needing replacing. There are hundreds of kilometres of ditching needing to be done. Road subgrades containing black soil, tree corduroy, stones and cobbles are all major challenges to address.

# Public Works 2021

## 3206 – PW Road Construction OPS Budget

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### DEPARTMENT OVERVIEW

The road construction budget handles capital upgrades to the gravelled road network. Work involves the planning and implementation of a 5 Year Capital Plan. The work is planned by PW staff and Council and is carried out by the County crews, and the County’s engineering consultants and third party contracting. Typical road upgrades include grading, clay cap, shoulder pulls and drainage improvements.

### FINANCIAL

Revenues for this department come from tax support and transfer from reserves. The reserve is built up from unexpended tax dollars relating to road construction. There is no grant support in this department and the total tax support **has increased in 2021 by \$300,000 to total \$2,046,500**. New road projects include repairs and upgrades to the Pipestone Road (TR 472A), TR 470 intersection repairs, Shoulder Pull and Drainage Works in most Divisions, and grading and drainage upgrades to RR 35 and TR 460 south of Winfield. Expenses include all those costs necessary to undertake the work; this includes engineering, third party contract costs and In-House (County) costs.

	Budget 2020	Budget 2021	Year over Year Variance
Total Expenses	\$3,496,500	\$3,215,930	-8.0%
Total Revenues	\$1,750,000	\$1,169,430	-33.2%
Net Tax Support	-\$1,746,500	-\$2,046,500	17.2%

The 17.2% variance from 2020 reflects the \$300,000 increase in tax support to this capital budget.

### KEY OBJECTIVES

The County will be further developing its Asset Management System (ASM) and its Rural Road Infrastructure Assessment (RRIA) to assist PW in the planning of future capital road projects. The ASM and RRIA will provide condition ratings that will organize and prioritize road segments in need of upgrades. The condition ratings include all those variables necessary to evaluate a road segment and includes maintenance costs, geometric qualities, drainage characteristics, brushing and encroachment issues, traffic volumes, and connectivity to other road segments in the network.

### CHALLENGES

Weather is always a contributing factor and is a risk that Contractor’s build into their bids. Negotiations with landowners for borrow material is increasingly difficult resulting in increased costs to the project.

# Public Works 2021

## 3207 – PW Paved Roads OPS Budget

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### DEPARTMENT OVERVIEW

This department deals with the County’s paved road infrastructure. The paved road infrastructure involves high quality ACP roadways, low quality ACP roadways, cold mix pavements and chip seal pavements. Typical activities include fog coats to stressed pavements, crack sealing, patching, overlays, levelling, chip seal and micro-surfacing.

### FINANCIAL

Revenues for this department are limited to tax support and transfer from reserves. Expenses include all those costs required for labour, materials, and equipment. Projects include crack sealing, line painting, patching and micro surfacing treatments to cold mix paved roads in various locations throughout the County.

	<b>Budget 2020</b>	<b>Budget 2021</b>	<b>Year over Year Variance</b>
Total Expenses	\$1,332,200	\$446,100	-66.5%
Total Revenues	\$954,400	\$103,300	-86.3%
Net Tax Support	-\$377,800	-\$342,800	- 9.3 %

The -9.3 % variance from 2020 reflects adjustments to interdepartmental reallocation of costs and assignments. Work primarily focused on maintenance and lower cost treatment strategies of local paved roads.

### KEY OBJECTIVES

A primary objective in 2021 is to identify the properties of the current paved road infrastructure. This will involve research of “as built” records, traffic counting, coring and sampling, and visual condition inspections. The data collected will identify the pavement type and supporting structures such as granular base course or cement stabilization. Once this data is collected, PW will develop a Pavement Management System that ties into the new Asset Management System (ASM). Once established, strategic maintenance decisions and paved road upgrades can be effectively planned and budgeted.

### CHALLENGES

The major challenge is to complete the paved road asset identification so that information can be incorporated into the Asset Management System. As these types of initiatives take time, allocation of staff and resources needs to be properly planned and scheduled to meet the program initiatives.

The annual tax support for this department has been insufficient for several years and unspent money has been placed in reserve for future projects. Due to pressures in other PW departments, the total transfer to reserves in 2021 is limited to \$0.



# Public Works 2021

## 3208 – PW Graveling OPS Budget

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### **DEPARTMENT OVERVIEW**

The graveling program aims to gravel approximately one third of the overall gravelled road network on an annual basis. In total, there are approximately 2,000 km of gravelled roads with 660 km gravelled each year. This equates to an average of 150,000 tonnes of gravel applied. The surfacing gravel provides a wearing surface and traction during inclement weather periods. As 150,000 tonnes of gravel is needed each year, the County is required to constantly source a gravel supply. This involves the development of County owned gravel pits and purchase of gravel from third parties - with the most cost-effective gravel supply chosen to service the various zones within the County. The application of gravel is handled by a combination of County labour and equipment as well as private gravel haulers.

### **FINANCIAL**

Revenues are primarily provided by tax support, reserves, and the Basic Municipal Transportation Grant (BMTG) in the amount of \$558,360. Expenses include labour, materials and equipment and includes third party contracting and County resources. An overall reduction of \$700,000 in graveling costs will be implemented and \$200,000 will be set aside in reserves for future graveling.

	<b>Budget 2020</b>	<b>Budget 2021</b>	<b>Year over Year Variance</b>
Total Expenses	\$2,708,105	\$2,208,104	-18.5%
Total Revenues	\$558,360	\$558,360	- - %
Net Tax Support	-2,149,745	-1,649,744	-23.3%

The -23.3% variance from 2020 reflects an overall reduction of \$500,000 from the program. Close to one third of the gravelled road network will be gravelled, but the average tonnage per km has been reduced to meet budget reductions.

### **KEY OBJECTIVES**

The County has completed the transition to the Fall graveling program. This included updates to the third-party hauler's agreement as well as a new 5-Year gravel supply and haul agreement with Hopkins Construction Ltd.

Using the AMS and RRIA tools, the targeting and placement of this key resource is achievable. A major goal is to accurately assess the need, and the volume of gravel required per road segment when provided information contained within the AMS and RRIA tools. This considers location (road segment), condition, road width, traffic, and maintenance costs to arrive at a calculated tonnage per km spread rate.

### **CHALLENGES**

A major challenge is the constant search and securement of a gravel supply. The County has assets in place to provide long term security in gravel supply, however gravel pit development, mining and reclamation is a lengthy and increasingly complicated process. The County must compete with neighbouring municipalities and private enterprise in the acquisition of gravel. Gravel is a finite resource and is becoming more expensive and difficult to secure.