

BACKGROUND

On April 12, 2010 Council considered Corporate Report No. Ro8o and authorized staff to conduct a survey of property owners in the West Clayton area, to determine the level of support for initiating an NCP planning process for the area.

In May, 2010, an Integrated Stormwater Management Plan ("ISMP") was launched for the watersheds draining the Clayton area, including but not limited to West Clayton. The contract for this study was awarded to AECOM, who have retained Diamond Head as an environmental sub-consultant. It is the City's practice to conduct an ISMP prior to preparing an NCP for an area. An ISMP provides important information to the NCP process and, in particular, determines the most appropriate ways of providing for storm drainage while protecting properties from flooding, and protecting the healthy functioning of streams, riparian habitat and groundwater. The recommendations emanating from an ISMP, coupled with the ecosystem study, will inform land use, transportation and engineering servicing plans and assist in the development of strategies for implementing drainage features and management in new neighbourhood developments within particular watersheds.

The West Clayton area is part of the area covered by the Clayton General Land Use Plan that was approved by Council in 1999. The General Land Use Plan envisioned a community with a range of housing densities in the West Clayton area, supported by a neighbourhood commercial centre located near the intersection of 72 Avenue and 188 Street, several schools and parks and a network of paths and greenways.

DISCUSSION

Survey Results

The mail-in survey of registered property owners in the West Clayton area was sent to 250 addresses (see Appendix I), being the owners of the properties in the West Clayton area. A postage-paid return envelope was included with each survey, and respondents were also able to return their survey response via fax. Of the 250 surveys that were sent out, 160 were completed and returned. These completed surveys represented 64% of the total number of survey forms that were sent out.

Of the completed surveys, 84% of respondents were in favour of initiating an NCP in the area while 15% of the completed surveys were opposed. In terms of the total survey (including survey forms that were not returned) 54% of property owners are in favour of initiating an NCP process for the area and 10% are opposed.

The Official Community Plan ("OCP") includes a policy that NCPs may be initiated when 50% or more of the owners in a defined area are in favour representing over 50% of the land area or when owners representing over 70% of the private land area within the defined area are in favour. The survey results for the entire West Clayton area exceed the OCP threshold for initiating an NCP.

The West Clayton survey area can be subdivided into a north and a south neighbourhood, defined by 76 Avenue. The survey results show that support for initiating an NCP is above 50% in each of these sub-areas (53% of property owners in the south and 59% of property owners in the north). These levels of support are higher if calculated only on the completed and returned surveys (82% of property owners in the south and 94% of property owners in the north).

Given these results, staff is confident that there is adequate support for initiating neighbourhood planning in the West Clayton area, in both Neighbourhood #1 (south of 76 Avenue) and Neighbourhood #2 (north of 76 Avenue).

Defining NCP Boundaries in West Clayton

The survey encompassed all of the lands between Fraser Highway on the south, the Agricultural Land Reserve ("ALR") on the west, 80 Avenue on the north, and 188 Street/East Clayton NCP boundaries to the east. Further review of the major infrastructure required to support urban development in the area has shown that there is a distinction between areas south of 76 Avenue and areas north of 76 Avenue within West Clayton.

Servicing the southern area, bounded by Fraser Highway on the south, 188 Street on the west, 76 Avenue on the north and the ALR boundary on the west, can be accommodated by the existing North Cloverdale Pump Station, with some extension and upgrade works, at a preliminary cost estimate of \$9 million. Going to the north of 76 Avenue, the servicing requirements will exceed the existing capacity of North Cloverdale Pumping and Gravity System leading to more upgrade work that will cost an estimated \$14 million. Detailed servicing plans and the financing of infrastructure works required to support urban development in these areas will be determined through the NCP process.

Background Studies Required for NCP

A number of background studies, in addition to the ISMP, are required to set the parameters for planning new neighbourhoods in the West Clayton area. These include:

- Heritage Resources Study - Identifying and prioritizing the heritage resources within the West Clayton area prior to developing land use plans will provide information that can improve the integration of heritage resources into future neighbourhoods;
- Commercial market study - A commercial market study will establish the capacity for additional retail services in the neighbourhood, the type of commercial development that is appropriate and the general location of commercial centre(s) based on demand that will be generated by development in the NCP and in consideration of existing and planned retail centres around the NCP; and
- Additional environmental and tree study - More detailed study of environmental assets and sensitivities is needed to augment the general ecosystem work undertaken as part of the Clayton ISMP, focused on West Clayton and the City's Ecosystem Management Study. This study will add detail and specificity, including an assessment of significant tree stands and specimens. Determining the ecosystems in the area and tree retention opportunities, prior to developing land use options, allows for a better integration of the environment with the urban development in the NCP. This work can be done most efficiently as an extension to the ISMP contract.

It is proposed that these studies be initiated prior to beginning the NCP planning and engineering work.

Terms of Reference for NCP

Terms of Reference will be developed for consulting services related to NCPs for each of Neighbourhood #1 and Neighbourhood #2 in West Clayton, and will be forwarded to Council for endorsement in fall 2010. It is expected that land use planning for this neighbourhood will be led by City staff, with support from consultants in the areas of transportation, engineering services, and development financing, in addition to the background studies mentioned above.

A Citizen Advisory Committee made up of property owners representing various sub-areas and interests within and around the planning area will be organized at the beginning of the NCP process, following an initial public open house. A detailed schedule for the NCPs, including the related public consultation program will be brought to Council for endorsement along with the Terms of Reference for the NCP process.

Engineering Infrastructure

In addition to public consultation and land use planning, the Terms of Reference will address engineering infrastructure issues and considerations. A detailed study will need to be undertaken to establish the water, sanitary sewer, drainage, environmental and transportation servicing requirements for this area as part of the NCP planning process. A preliminary assessment of the respective servicing constraints and opportunities are as follows:

- Sanitary Sewer - There is no existing City sanitary sewer system in the West Clayton area that is north of Fraser Highway and west of East Clayton NCP area. All existing lots with residential dwellings are serviced by individual private septic disposal fields. The nearest City sewer is at 177A Street and 72 Avenue south of Fraser Highway.

Servicing an area bounded by Fraser Highway on the south, 188 Street on the east, 76 Avenue on the north and the ALR boundary on the west can be accommodated by the existing North Cloverdale Pump Station and its twin force-mains and gravity mains on Highway 15. However, some works will be required to extend these sewer works to West Clayton and to upgrade the North Cloverdale pump station. A preliminary cost estimate for these works is \$9 million, which includes the Cloverdale Trunk extension proposed along the foot toe of Clayton hill slope and the upgrading of the North Cloverdale pump station, installing an emergency overflow tank, and upgrading the South Cloverdale Trunk at 17400 Block from Highway 10 to 57 Avenue.

Going beyond this area in West Clayton to the north of 76 Avenue requires servicing that will exceed the capacity of North Cloverdale Pumping and Gravity System. The sewer system upgrade work to service the area of West Clayton north of 76 Avenue will cost an estimated \$14 million. These upgrade works include extension of the Cloverdale Trunk to 188 Street from 76 Avenue, expansion of the North Cloverdale pump station, adding addition force-main and gravity sewers on 176 Street and further upgrades to the South Cloverdale Trunk. The alternative of tunnelling the Cloverdale sewer through the Cloverdale Fairground will be evaluated against the pumping option.

- Water - The area is currently partially serviced with municipal water by way of small diameter mains. A new system of feeder mains, pressure reducing stations, and distribution water mains will be required to support developments in the area.

The topography of the area requires this NCP area be serviced by two separate pressure zones. The eastern portion of the NCP is located in the Pumped Zone of the existing Clayton Pump Station. The existing Clayton Pump Station, located at 72 Ave east of 190 St, has been designed to be expanded to provide service to this NCP area. Upgrades such as additional pumps would be required. Feeder mains along 72 Avenue from the Clayton Pump Station to the NCP area would also be required. The western portion of the NCP area, generally below the 55 metre contour, would be serviced by a system of new feeder mains from existing GVWD trunks.

On site distribution mains would be required to service the developments of the NCP area. The layout and sizing of the distribution mains will be determined after the land use plan and road layout are developed.

- Drainage - West Clayton currently is serviced with ditches for drainage and some pipe systems which were put in place as ditches were filled. The proposed study area drains north west toward the lowlands in the agricultural land reserve.

Servicing of the upland areas to allow urban development will require the construction of a complete network of storm water collection pipes. Currently, the natural drainage flows through ditches to yellow coded creeks or red coded ditches in the lowlands. The ditches convey the flows toward to the Harvie Road ditches from where it flows across Highway 15 to the Fry's Corner East pump station.

Many of the ditches that service the area are located on private property in the farms in the lowlands, where no formal agreements exists to allow increased flows or expansion of conveyance capacity.

An engineering evaluation is required to quantify the expected upland design flows and servicing needs based on a proposed land use plan. The review will evaluate the capacity of the lowland drainage system and will identify needed conveyance system improvements.

The drainage review will identify any land that needs to be acquired for the conveyance system.

The consultant will confirm whether the existing pump station at the Serpentine River has sufficient capacity and if additional mitigation measures are required to protect the lowlands.

The consultant assigned to the drainage review will review the area through a field and aerial photo study to determine if there are watercourses not shown on the City's stream classification map or if the streams shown should be re-classified. As part of this component the consultant will identify setback requirements to be protected as part of the land use plan for the area. [The NCP consultant team will coordinate and build on the drainage strategy proposed in the ISMP work currently underway for the area. It is envisioned that the ISMP will provide the foundation for the NCP drainage servicing requirements.](#)

- Transportation - Most of the proposed NCP area is served by roads with a rural cross-section (that is, no curbs, gutters, sidewalks or regular streetlights). Several roads in and adjacent to the study area are classified as Arterial roads, including Fraser Highway, 72 Avenue, 80 Avenue and 184 Street while 188 Street and 76 Avenue are classified as Collector Roads on the City's Road Classification map. However, none of these Arterial or Collector Roads has been

constructed to the City's urban standards and, in most cases, the ultimate right of way has not been attained. It is expected that DCCs generated through development of the West Clayton area will pay for the majority of necessary upgrades to major roads that provide service to the area.

In addition, local roads will be required to serve new neighbourhoods, and to distribute vehicle, pedestrian and cycling movements through and within the neighbourhoods. Developing a grid network of local streets for mobility is a key part of creating a liveable neighbourhood that supports active transportation and transit choices while distributing automobile traffic effectively. Given the existing network of streets and the regular spacing of property lines in the West Clayton area, it is expected that developing a modified grid street network will be feasible and effective in the NCP.

A key issue related to transportation planning in the NCP will be the alignment and design of 72 Avenue, particularly as it connects with Fraser Highway. It is expected that frequent transit service, and possibly Rapid Transit service, will be located along Fraser Highway in the future. Land uses, densities and local connections from the neighbourhoods to this corridor will need to be carefully considered in the planning process.

- District Energy - As part of the NCP and in conjunction with the development of the engineering infrastructure servicing strategies, a technical and financial viability study for the provision of a district energy system will be completed. While the timing and feasibility for the implementation of an ultimate district energy system is dependent on energy market conditions and available technologies, the development potential of this area provides an excellent opportunity to formulate a district energy strategy. Potential energy sources for a district energy system in this area may include natural gas or low-GHG energy sources, such as sewer heat recovery, geoexchange and biomass.

CONCLUSION

The mail-out survey of property owners in the West Clayton area shows sufficient support for the initiation of neighbourhood concept planning in the West Clayton area. Preliminary engineering infrastructure assessments indicate that the area south of 76 Avenue can be serviced by upgrading and extending existing sanitary sewer infrastructure. If urban development proceeds north of 76 Avenue, significant sanitary sewer works are required beyond the capacity of the North Cloverdale Pumping and Gravity Sewer System.

Based on the above discussion it is recommended that Council:

- Approve the boundaries for West Clayton Neighbourhood #1 and West Clayton Neighbourhood #2 as shown in Appendix I;
- Authorize staff to initiate background studies covering the entire West Clayton area in advance of preparing NCPs, including:
 - a heritage review and assessment study;
 - a commercial market study; and
 - a detailed ecosystem review study, including a tree survey; and

- Authorize staff to prepare and forward to Council for approval a Terms of Reference, including consulting services, to undertake an NCP planning process for each of West Clayton Neighbourhood #1 and Neighbourhood #2 as shown in Appendix I.

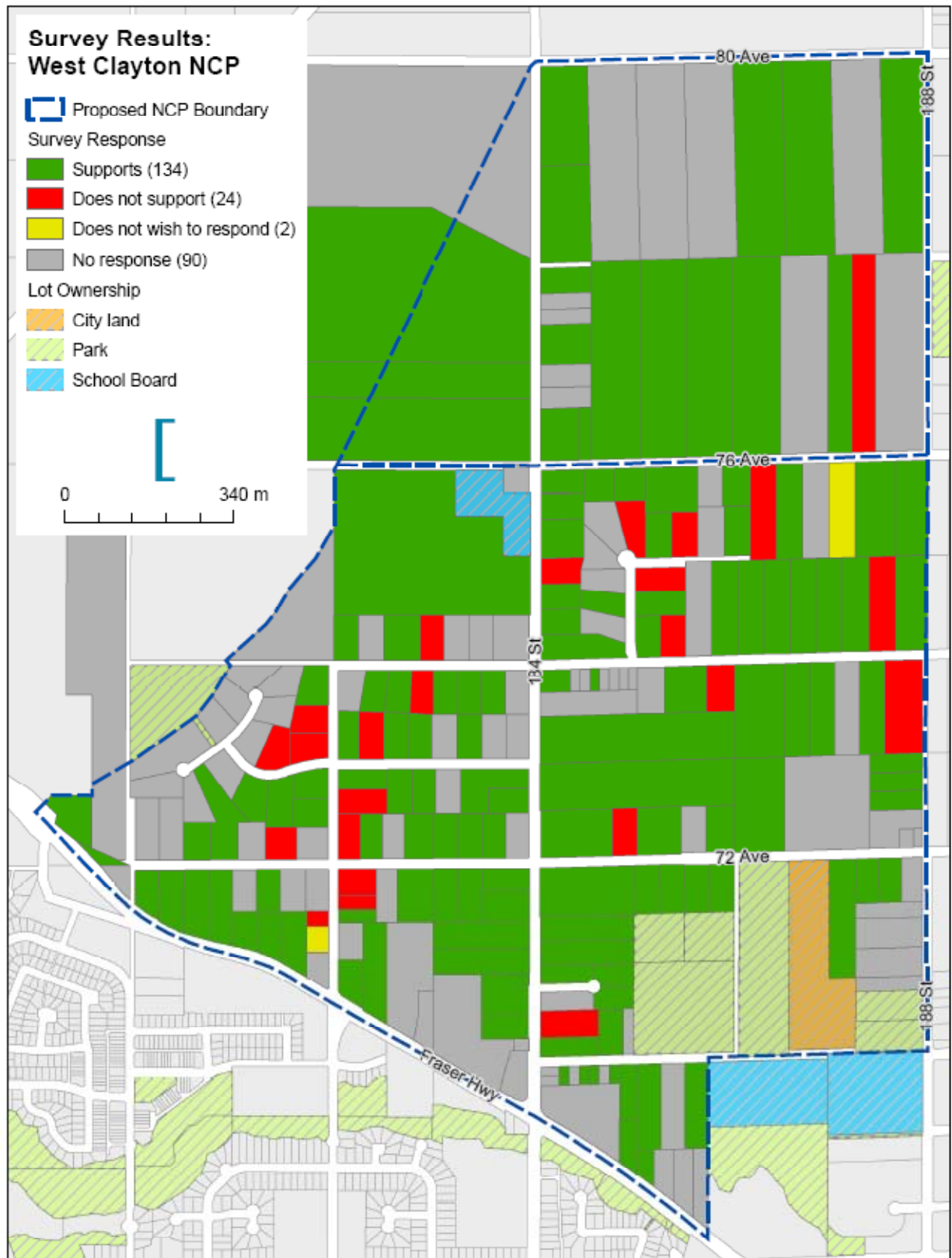
Original signed by
Jean Lamontagne
General Manager
Planning and Development

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Attachments:

Appendix I – Survey Results Summary – West Clayton NCP Area

Survey Results Summary - West Clayton NCP Area



Survey Results From Privately-Owned Parcels

1. West Clayton Area: Total # of Parcels = 250

	Responses Received	No Response	% of the Total Responses Received (160)	% of the Total Number of Parcels (250)
Supports NCP	134	-	84%	54%
Does Not Support NCP	24	-	15%	10%
Does Not Wish to Respond	2	-	1%	1%
Survey Not Returned	-	90	-	36%
Sub-Total	160	90	-	-
Total	159 + 90 = 250		100%	100%

2. West Clayton Area North of 76 Avenue: Total # of Parcels = 29

	Responses Received	No Response	% of the Total Responses Received (18)	% of the Total Number of Parcels (29)
Supports NCP	17	-	94%	59%
Does Not Support NCP	1	-	6%	3%
Does Not Wish to Respond	0	-	0%	0%
Survey Not Returned	-	11	-	38%
Sub-Total	18	11	-	-
Total	18 + 11 = 29		100%	100%

3. West Clayton Area South of 76 Avenue: Total # of Parcels = 221

	Responses Received	No Response	% of the Total Responses Received (142)	% of the Total Number of Parcels (221)
Supports NCP	117	-	82%	53%
Does Not Support NCP	23	-	16%	10%
Does Not Wish to Respond	2	-	1%	1%
Survey Not Returned	-	79	-	36%
Sub-Total	142	79	-	-
Total	142 + 79 = 221		100%	100%