



**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, NOVEMBER 23, 2016**

SUBJECT Natural Asset Management (Natural Capital)

ISSUE

To provide the Environmental Services Committee with background information related to Natural Asset Management (Natural Capital).

BACKGROUND

Sustainable Service Delivery ensures that current community service needs, and how those services are delivered (in a socially, economically and environmentally responsible manner), do not compromise the ability of future generations to meet their own needs. Under the BC Framework for Asset Management for Sustainable Service Delivery, Asset Management is defined as “an integrated process, bringing together skills, expertise, and activities of people with information about a community’s physical assets; and finances so that informed decisions can be made supporting Sustainable Service Delivery.” Assets are physical infrastructure (e.g., water and wastewater systems, drainage and flood protection systems, transportation systems, civic facilities, parks and fleet) and can also include natural features and the ecological functions they provide (e.g., natural infiltration of stormwater; the cleaning and polishing capacity of wetlands to produce clean water). Natural Asset Management integrates an understanding of natural systems and the functions they provide into traditional service delivery.

Increased alignment of asset management with integrated watershed management leads to improvements in watershed health. Examples are being documented across many jurisdictions. New York City invested \$1.5 billion USD in watershed protection in its Catskills watershed, and has saved \$6 billion in capital costs and \$300 million in annual operating costs for a treatment plant that it would otherwise have required. Research following Hurricane Sandy showed that healthy marshes, beaches and dunes, oyster reefs and floodplains provided important natural barriers against storm surges and flooding risks, making them an effective complement to, or in some cases a replacement for, engineered infrastructure.

Asset management business processes are increasingly used to manage aging infrastructure and service level expectations, and are increasingly becoming a requirement for grant programs such as federal gas tax funding. In May 2014, Canada, the Province of BC and the Union of BC Municipalities (UBCM) signed the renewed Gas Tax Agreement for a 10-year term. The Agreement identifies that local governments will be required to meet asset management commitments as established by the Partnership Committee. These asset management commitments are aligned with Asset Management BC’s *Asset Management for Sustainable Service Delivery: A BC Framework*.

The Framework links directly to, and provides support and guidance in meeting, the asset management requirements under the Gas Tax Fund. Stakeholders such as the Province, UBCM, Local Government Management Association, Government Finance Officers Association, Public

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Works Association, Planning Institute of BC, BC Water and Waste Association, and others, have endorsed it as the framework for asset management in BC.

Municipalities are starting to recognize the important role the natural environment plays in regional infrastructure systems. Strategies to conserve and enhance natural capital by measuring and managing natural capital within existing asset and financial management processes are starting to emerge. The Town of Gibsons is the first municipality in North America to develop a natural asset policy. The policy explicitly defines and recognizes natural assets as an asset class and creates specific obligations to operate, maintain and replace natural assets alongside traditional capital assets, including having natural asset management strategies and financial resources to maintain them. However, under the Public Sector Accounting Board (PSAB)'s, recognition criteria for tangible assets, natural capital resources are not recognized on the statement of financial position. While there has been growing support to include such natural resources in the definition of tangible assets, there is no timeline from PSAB on development or implementation of a natural capital policy.

Asset Management BC and UBCM are also starting to introduce the concept of natural capital in an asset management context through the Municipal Natural Asset Initiative. UBCM announced recently that “Gibsons is the first of several local governments engaged with the Municipal Natural Asset Initiative, a project bringing together asset management, financial planning and ecological protection.”

Within the Capital Regional District (CRD), staff initiated a cross-departmental discussion in March 2016 that identified a number of current projects that have a link to natural capital. The group put forward a recommendation to discuss the Municipal Natural Asset Initiative at the Asset Management Steering Committee to promote awareness of the initiative across the organization. The CRD Board has formally expressed its support for the partnership and this workshop was identified as a deliverable from that support. Finally, Finance staff are working on a response to the July 6, 2016 Finance Committee request for more information on what is required to deliver certain tasks under Natural Asset Management.

ENVIRONMENTAL IMPLICATIONS

Natural Asset Management integrates land use, infrastructure servicing, financial and ecological planning. Emphasis is on the levels-of-service that assets provide and what is affordable over time. A logical management unit for natural capital is the watershed, a boundary within which all water drains to a common point. The *BC Water Sustainability Act* establishes expectations and direction for adapting to a changing climate and recognizes the connection between land use actions and the implications for the water cycle and watershed sustainability. There is strong and growing evidence that natural assets such as forests, rivers, wetlands and riparian areas can provide municipalities with services equivalent to those from engineered assets. Furthermore, natural assets can provide these services at lower cost than engineered alternatives, as they often have both lower capital costs and operating costs.

FINANCIAL IMPLICATIONS

Inclusion of natural asset management into business practices has the potential to reduce capital, operating and maintenance costs of service delivery by local and regional governments. In some

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cases, natural systems can replace infrastructure at a lower upfront cost with lower operation and maintenance costs and longer service life. However, at this point, there are no established PSAB accounting standards or costing valuation methods in place.

SOCIAL IMPLICATIONS

The inclusion of asset management, and specifically natural asset management, moves service delivery closer to the goal of sustainability where the needs of current communities are met without compromising the ability of future generations to meet their needs.

NEXT STEPS

Some work in support of natural asset management is planned or underway:

- Integrated Watershed Management staff will co-host a sustainable service delivery workshop in early 2017 with the Partnership for Watershed Sustainability in BC.
- Staff will continue to work to support natural system mapping (through updating of CRD watershed mapping and supporting the Habitat Acquisition Trust's Land Cover Mapping project) and the completion of a set of low-impact guidelines for green infrastructure.

CONCLUSIONS

Natural Asset Management is an emerging component of asset management that meets the larger goal of sustainable service delivery. Consideration of natural asset management is becoming a requirement of funding requests from senior levels of government as it becomes more relevant with aging infrastructure, climate change and our understanding of the potential of natural systems to support resilient communities. CRD staff have initiated actions around natural asset management within our service delivery.

RECOMMENDATION

That the Environmental Services Committee recommend to the Capital Regional District Board:

That this report on Natural Asset Management (Natural Capital) be received for information.

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