THE MUNICIPALITY OF OSLO APPLICATION FOR CANDIDACY TO

THE LANDSCAPE AWARD OF THE COUNCIL OF EUROPE 2016-2017

THE RIVERS AND LANDSCAPES OF OSLO

Oslo's landscape is rich and varied – its topography, geology as well as biology. The fjord and water form the base of the landscape, which is surrounded by an amphitheatre and a valley (The Grorud Valley). Here, the city has grown and developed through a thousand years. A continuous belt of forested hills and ridges – the so-called "Marka" – encircles the city, providing a green and lush backdrop.

Significant height differences between the forest and the fjord, combined with a climate that provides regular rainfall, has given rise to 10 rivers, which are considered the main waterways of Oslo. These urban waterways have largely defined, shaped and structured the development of the Norwegian capital, and has given the city its character and identity.

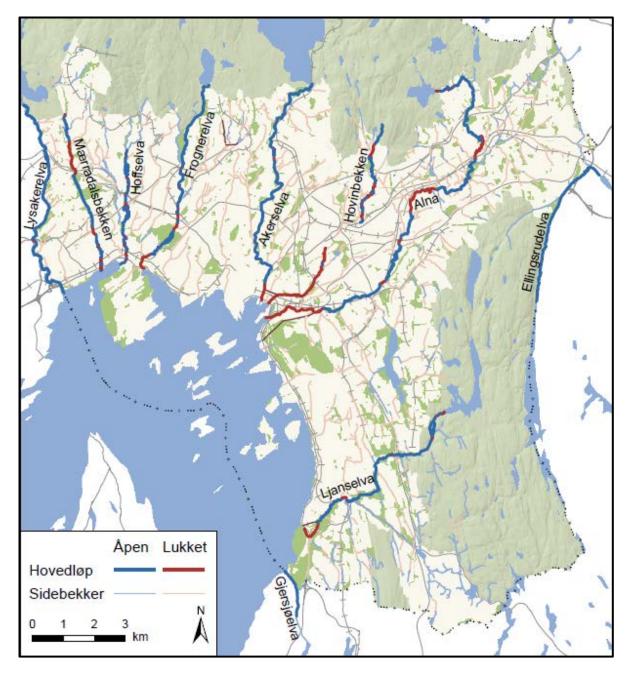
However, the significance and valuation of the city's rivers has varied through history. During the last century, several sections of the rivers were culverted, in an attempt to put a lid on and rise above the natural landscape.

During the past 20-30 years, however, this attitude has changed dramatically, as the appreciation of the value and importance of the city's rivers flowing openly and freely through the cityscape has grown. Today, when developing the city, Oslo has a clear ambition and a goal to emerge as the a blue and green city between the fjord and the forest, where living rivers form a city web, binding everything together into an organic, logical, functional and attractive whole.



Spring in the lush river landscape along the Alna, close to Grorud. (Photo: Espen Bratlie, 2011)

Several of Oslo's 10 rivers could be discussed when describing the efforts to preserve and strengthen the blue-green structures in the capital. In this application to the Landscape Award of the Council of Europe 2016-2017, however, we have chosen to highlight the work done along the Alna River since the turn of the Millennium. For years, the Alna was a "forgotten" river in the cityscape. Now, it is about to win back its rightful and important position.



The map shows the 10 rivers of Oslo: the Lysaker River, the Mærradal Stream, the Hoff River, the Frogner River, the Aker River, the Hovin Stream, the Alna River, the Ellingsrud River, the Ljan River and the Gjersjø River. Bold lines = main rivers, thin lines = tributaries. Blue = open, red = closed (From the draft Green Structure Plan for Oslo, Agency for Planning and Building Services, 2009).

Alna

The Alna River has existed for thousands of years, long before people settled along its banks. The first inhabitants of Oslo did probably not settle down exactly by the Alna, however it was at the river's outlet that a city eventually developed, becoming the capital of Norway in 1314. The outlet of the Alna can therefore be considered the cradle of the capital.



Today, the outlet of the Alna has been recreated in the Medieval Park, as a park design and an image of what it once might have looked like. Since 1922, the Alna has passed through a 1.3 km rock tunnel, which culminates in the fjord by Kongshavn. (Photo: Stian Raa, 2012)

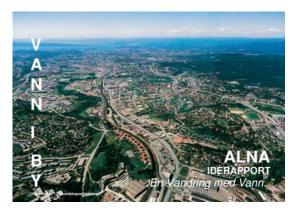
At 17 kilometres, the Alna is one of Oslo's longest rivers. It starts in the Lillo forest, with the Alna Lake as its main source. The river also has many smaller tributaries, the Fossum Stream/Tokerud Stream being the biggest. On its flow towards the fjord, the Alna falls 237 metres and forms the biological and blue-green spine of the Grorud Valley. It passes through a cityscape of contrasts, where you find everything from native forests and diverse natural areas, to facilitated parks and recreational areas, commercial and industrial areas, as well as a variety of traffic and transportation areas. In short: a variable and often disjointed landscape – a conglomerate of alternating land use, where people may experience that their sense of belonging to the landscape is impaired.

The blue-green corridors created by the rivers bind the landscape together, in a way that helps us makes sense of our surroundings and is attractive to us as humans. At the same time, an open and living river environment enables better storm water management and reduces the risk of flooding. Open waterways combined with vegetation, are also a prerequisite to enable nature's own self-cleaning processes to provide cleaner water for the river. Based on the recognition of this fact, since the turn of the Millennium, the Municipality of Oslo has developed plans and implemented measures to make the Alna once again emerge as a central element of the Oslo landscape. The following are some of the main plans and measures:

PLANS AND MEASURES

The Alna Report of Ideas: «A Walk with Water» (2002)

Through an interagency collaboration led by the Agency for Water and Sewerage Works, the Municipality of Oslo developed a vision and a Report of Ideas on how the Alna could be strengthened. This gave the efforts to enhance the river landscape renewed hope, credibility and direction.

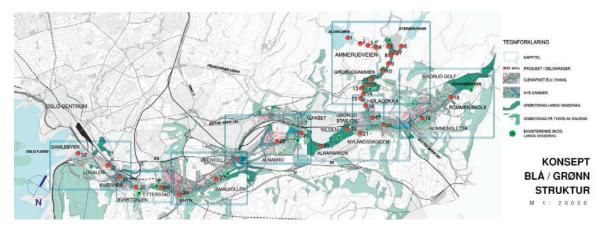


The aim of the report was to "show measures and opportunities for how the municipality's vision for the Grorud Valley can be realized: by strengthening and developing the valley's blue-green structure and enhancing biodiversity." (p. 4)

This is an example of how the concept was described in the report:

«A reopened Alna River will be the lifeblood of a new blue-green structure in the Grorud Valley. When opening the Fossum Stream and the Alna as a continuous waterway, it is important to highlight the river by constructing larger ponds at central intersections with the main transport arteries flowing through the valley – to give the waterway identity. This will be visually important for the understanding and the experience of the river when travelling through the valley. The ponds also improve water quality through attenuation and biological treatment of polluted storm water from the large traffic structures along the waterway. Over time, the "nerve fibres" – the tributaries – can be reopened as part of the effort to establish green structures across the valley.

Storm water from residential areas, streets and road infrastructure, industrial and terminal areas is lead through an open system into green areas for attenuation, infiltration and biological treatment, before release into the waterway. Storm water from terminal areas and industrial areas is lead through a gutter system for attenuation, infiltration and biological treatment at the edge of recreational areas and paths systems.



The main concept, from the Report of Ideas, which divide the entire waterway into different projects/subareas.

The Hølaløkka Water Park

The Hølaløkka Water Park represents the first major physical measure – reopening a closed river section (approx. 300 metres) and enhancing the river environment along the Alna. The project was realized between 2003 and 2004, and is often described as "a showcase for physical, ecological and aesthetic waterway rehabilitation in an urban area", (Holtan-Hartwig et al p. 94)





Plan outline (Multiconsult, dept. 13.3 landscape architects)

The result, after three years. (Photo: I.H. Kjerkreit 2007).

As part of this project, a wetland, among other things, was constructed – contributing to the treatment of polluted storm water from traffic and industrial areas, before release into the Alna. Since, the river has become more robust in dealing with the pollution a city river is exposed to. In addition, the self-cleaning properties of the waterway have been improved. The measures also include a new and attractive nature and environmental park, with ample opportunities for recreation and activities.



Left: At the top end of the area, the river water is channelled into the water park through a narrow section, with a walking path along the side. Right: The water park is divided into two levels, with a dam at the top end and a wetland at the bottom end. (Photo: I.H. Kjerkreit, 2007)

Municipal Sector Plan for the Alna Environmental Park (begun 2007, adopted 2013)



In 2007, to ensure that the efforts to strengthen the Alna were anchored in legally binding land-use plans, Oslo began work on a separate Municipal Sector Plan for the entire Alna waterway. The plan was adopted in 2013. The main aim of the plan is described as:

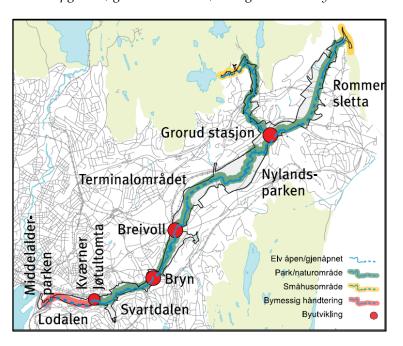
"By 2020, the Municipal Sector Plan for the Alna Environmental Park will facilitate the reopening and environmental improvement of the Alna

and its main tributaries, from the Alna Lake to the fjord. It will provide the basis for a diverse development of the waterway and its tributaries, to increase its attractiveness and strengthen the identity of the entire Grorud Valley. The plan is to be developed along the same lines as the Municipal Sector Plan for the Aker River Environmental Park."

The plan is an important instrument in order to ensure that future land development preserves and strengthens the Alna. § 4 describes the aim of the plan:

«The Municipal Sector Plan will secure and facilitate the Alna and the Tokerud Stream, forming an important blue-green structure from the Lillo Forest/Gjelleråsen to the fjord. It will facilitate urban developments that make the most of the possibilities provided by conscious use of water. It will also ensure reopening, environmental upgrades, green structures, biological diversity and the

preservation of cultural heritage along Alna, the Tokerud Stream and important tributaries throughout the waterway. Access to the environmental park, by all the plan's target user groups, is to be secured. The plan also ensures that the requirements of the water management regulations are met.



The Grorud Valley Project

The Grorud Valley Project has been an important source of financing and a driving force to realize physical measures in the Alna. The project was initiated in 2007, when the National Government and the City Government signed a memorandum of understanding. The parties agreed to cooperate to develop the Grorud Valley during a ten-year period – from 2007 to 2016.

The main aim has been sustainable city development, visible environmental upgrades, better quality of life, and over all better living conditions in the Grorud Valley. The Municipality of Oslo has been responsible for the overall development and the implementation of the various projects. Their efforts have been organised as four programme areas, of which the blue-green measures in area two – Alna, *green structures, sports and cultural environment* – have been prioritized and completed.

The result is a series of measures that have strengthened the river landscape of the Alna, and provided better opportunities for recreation, activity and access to positive natural and cultural experiences close to people's homes, work places and schools. These are some of the most important measures completed by 2013:

The Alna Trail – Path D10

Oslo has a citywide plan for a comprehensive network of walking and cycling paths. A number of routes have been finished. However, several important green corridors and/or paths still need to be established to properly connect the city's nature and recreational veins.



The longest of these inter-connected paths run along the course of the Alna, and is called the Alna Trail or D10. In 2011, as part of the efforts to strengthen the Alna and

the opportunities for recreation in the river landscape, the municipality issued an information brochure about the Alna Trail – in addition to implementing several measures, as described below.

The brochure describes the various opportunities for hiking and experiences along the Alna, reviewing many of the new, implemented measures that have provided the inhabitants of Oslo with new opportunities to make use of the river landscape.

In addition, the signposting has been improved, in accordance with the municipal standard for signposting walking and cycling paths.



The Black Valley/Fagerlia Trail – 2011

In 2011, a new 900-metre long section of the Alna Trail, running through the so-called Black Valley (Svartdalen), was completed. This constitutes an important link in the effort to create a comprehensive path along the river. A unique feature of this part of the project is a 250 metre long boardwalk bypassing the geological phenomenon of the Ekeberg escarpment, making it possible to get close to the Alna in a steep and dramatic landscape.

Prior to the construction of the trail, the area was inaccessible and littered. In addition, the railway and road constructions formed physical barriers, making it impossible to create a continuous path.



The new path along the Nygård waterfall is a suspension bridge, creating opportunities for close encounters with nature. (Photo: E.Røhne, 2012

The wooden boardwalk rests on stakes, and meanders above the river, and below a road bridge and two old railway bridges. By the Nygård waterfall, one of the biggest waterfalls in the Alna, the trail crosses a new suspension bridge. Further east, the trail continues as a universally designed gravel road through Fagerlia – a lush natural area. The entire section is well signposted, giving people the opportunity to choose several alternative paths. On May 16th, 2011, he trail was officially opened by the then Minister of the Environment, Erik Solheim

«The Haugen Gate» and the opening of the Tokerud Stream (2008)

Roads, industrial areas and railway lines constitute some of the main barriers for pedestrians and cyclists in the Grorud Valley. Previously, due to the railway, people had to make a one kilometre long detour at Haugenstua, before continuing along the Alna Trail.

The construction of the Haugen Gate, an underpass beneath the railway lines, southwest of Haugenstua station, has made it easier to stroll along the Alna Trail.

In order to build the underpass, the train traffic had to be stopped. The work was carried out during a 36-hour halt to all train traffic. In this short time, large amounts of rock mass and 45 metres of railway track was removed, before the underpass was mounted. This was the first major effort to remove barriers created by the railway in the Grorud Valley.



The actual underpass is a 40 metres long steel pipe (culvert) dug down beneath the railway tracks. The underpass was named the Haugen Gate after a naming contest.

In connection with the construction of the underpass, 20 metres of the Tokerud Stream, and important tributary to the Alna, was opened up north of the Haugen Gate. Here, a pond, a small waterfall and seating were established.



The Grorud Park, the Leir Waterfall and Path D9

In the 1970s, the Leir Waterfall, one of upper Alna's biggest waterfalls, was hidden behind a concrete dam. In April 2011, in connection with upgrades to parts of the trail system, the Leir Waterfall was reopened. Now, access to the waterfall has improved, upstream as well as downstream. It is now possible to get close to this proud waterfall, which used to be an important source of power to the industry in the area (see picture to the right)

Upgrading the Grorud Park has been one of the major park projects in the Grorud Valley Project. Each of the four districts in the Grorud Valley has selected a main local park, which has received extra attention and resources. The Grorud Park project involves an area stretching all the way from Ammerud down to Hølaløkka.

Now, the entire path system along this section of the Alna constitutes a facilitated and continuous nature and parkland area of high quality. Among other things, a dedicated lighting plan has been developed for the entire area, making it attractive for recreation after dark.



The heart of the Grorud Park is the area surrounding the swimming pond close to the Grorud sports grounds. Here, the Alna has been dammed and a swimming jetty and seating has been established close to the river. (See picture to the right)



SUMMARY

In recent years, a lot has happened when it comes to the planning and the implementation of measures. However, a lot remains. Key challenges in relation to the protection and strengthening of this valuable and important river landscape is an integral part of the development of this part of Oslo

Known and unknown sources of pollution still affect water quality in the Alna. The visual experience of a continuous river landscape is still fragmented in some areas, where the river is still culverted or commercial areas and technical infrastructure create visual and traffic barriers.



Alna flows quietly beneath the Kallbekk Bride, one of the many cultural heritage sites along the river. The Bridge is protected under the Cultural Heritage Act. It was originally constructed around 1790, and is one of the oldest vaulted stone bridges in Norway. It was restored as part of the Grorud Valley Project. Photo: E. Røhne, 2012

In spite of this, in recent years, the efforts along the Alna have resulted in the reconstruction of the river landscape – physically, but not least in the consciousness of the people who live and stay in its vicinity. This fact gives direction to and strengthens the driving force to continue the reconstruction of river landscapes in the townscape. A negative trend has been reversed, and the Alna is emerging as an important premise for further urban development in this part of Oslo.