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Making the Seine Swimmable: From Regulatory Challenges to a Metropolitan Vision

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Abstract
This article examines the reintroduction of swimming in the Seine from a dual perspective: first, the technical and regulatory constraints specific to Paris; second, the need to broaden the scope toward long-term territorial planning. In the first part, the authors show how floating bathing facilities must contend with regulations designed for river navigation rather than swimming. This framework imposes sometimes unsuitable standards (freeboard, ERP classification, navigation police regulations) leading to a highly controlled and formalized design of sites, though one deemed necessary to ensure the coexistence of multiple uses of the river. In its second part, the authors warn against the limitations of a single model – the enclosed pool – which fails to reflect the diversity of urban swimming practices and may in fact encourage informal, unsupervised swimming. Drawing on the example of Copenhagen, the authors argue for an integrated metropolitan strategy that embraces diverse forms of access to the water, making swimming a durable component of Paris's territorial development.

KEYWORDS

urban swimming
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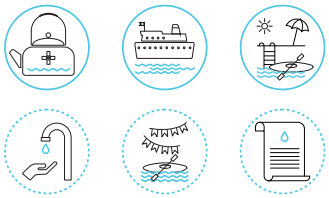
WATER ICONS



Policy Recommendations

- Finalize a regulatory framework for urban swimming, building on ERP adjustments to ensure clear and durable safety rules beyond the first pilot year.
- Develop a metropolitan master plan for urban swimming that identifies diverse sites (oxbows, docks, canals, islands) and avoids reliance on a single facility typology.
- Pilot shared-use agreements between navigation and urban swimming, initially in controlled areas (e.g. Bassin de la Villette, 2026–2028), as a basis for Seine-wide regulation.
- Integrate urban swimming into the 2030 National Water and Climate Policy revisions.

< Fig. 1 Swimming in the Seine (Source: Clément Brun, 2025).

Introduction

At first sight, swimming in natural water may appear a simple activity, whether in terms of the equipment required or the layout of the areas in which it can be practiced. The joys of immersion in a river or by the sea evoke a simple gesture, a form of immediate and sensitive reconnection with the natural environment. Yet in Paris, this fantasy of beach bathing comes up against a host of historical, physical, heritage, health and legal realities (Bouleau, Lucas and Mouchel 2024), as well as the many rules governing the use of the Seine. In Paris, bringing bathing back to the Seine is not simply a matter of returning to nature (Paquot 2004), but a process of technical and institutional reconquest requiring complex engineering, involving experts in naval architecture, hydraulic engineers, building architects, biologists, civil engineering specialists and landscape architects (Bertrand 2024). But how far can technical solutions go in overcoming the obstacles to urban swimming? Must such projects, if they are to succeed, necessarily integrate a strong political dimension at the metropolitan scale, given that they challenge the very organization of the city and its river?

Without claiming to provide an exhaustive overview of the process of creating the Paris swimming facilities, this article aims to shed light on some of the operational and technical challenges encountered by the City of Paris, the contracting authority for the project. It highlights the work of its engineers and the issues they faced in reconciling inherited governance structures, technical innovations and future uses, collective ambition and legal responsibility. The second part of the text looks at how the legacy of swimming can be sustained beyond Paris, through long-term development planning to establish swimming as a genuine component of the Seine axis.

The examples of Paris and Copenhagen encourage us to think of swimming facilities not as an isolated object but as a component of a coherent territorial strategy based on diverse forms and uses (Augustin and Suchet 2016). Conflicts may have punctuated the project's early stages, but they did not hinder its momentum (Lascoumes, Timbart and Danglade 1994). On the contrary, they fostered innovation: greater dialogue between all the stakeholders, renewed governance, new navigation regulations, differentiated opening times, and adjusted sharing of uses. Opening the Seine to swimming does not call into question Paris's role as the world's leading inland passenger port, and it goes hand in hand with the growing importance of river transport. But a further step is now needed. While cities along the Seine have taken up the challenge of making their rivers swimmable, they now need to work toward a shared metropolitan vision. Through this case study, we show that the response to major contemporary challenges, such as reconnecting the city with its natural areas, can only be achieved by drawing on the historical heritage of practices along the Seine. This continuity between past and future is the guarantee of acceptability, both for the local population and for the activities already taking place in these areas.

Swimming in the Seine: Technical and Regulatory Challenges

The Seine today is among the busiest commercial waterways in Europe: In 2020, more than 21.3 million tons of goods were transported along the river under the management of HAROPA PORT.[1] At the same time, it remains a major tourist artery, continually traversed by sightseeing boats carrying over 7.5 million passengers in 2017. Ranked as Paris's second-

most visited monument after the Louvre,[2] the Seine simultaneously functions as a crucial logistical corridor and a cultural heritage site. To this functional complexity must be added a crucial sanitary dimension: More than €1.4 billion has been invested in connection with the 2024 Olympic Games to improve the quality of the water in the Seine and the Marne, notably through the construction of two new upstream wastewater treatment plants, two vast stormwater retention basins within the capital and extensive upgrades to the sewer system. In this context of already intense competition between uses, the reopening of the Seine for swimming has been presented by public authorities not only as a sporting legacy of the 2024 Games, but also as a civic project – enhancing access to leisure and addressing environmental justice issues such as the mitigation of urban heat islands – and as a lever for ecological restoration, in a river where no fish were present in 1990 but where 36 species of fish and several species of mussels have now been recorded.

The long history of the river in Paris has had a profound and constraining effect on current development. Since the eighteenth century, the Seine has been the subject of intensive canalization, followed by extensive modernization of its banks in the nineteenth century, under the impetus of Napoleon I and then Napoleon III. Right up to the present day, through the construction of ports and embankments human activity continues to shape the river's role as a boundary. Dominated by its port heritage, the water is now physically inaccessible along most of the Paris stretch.

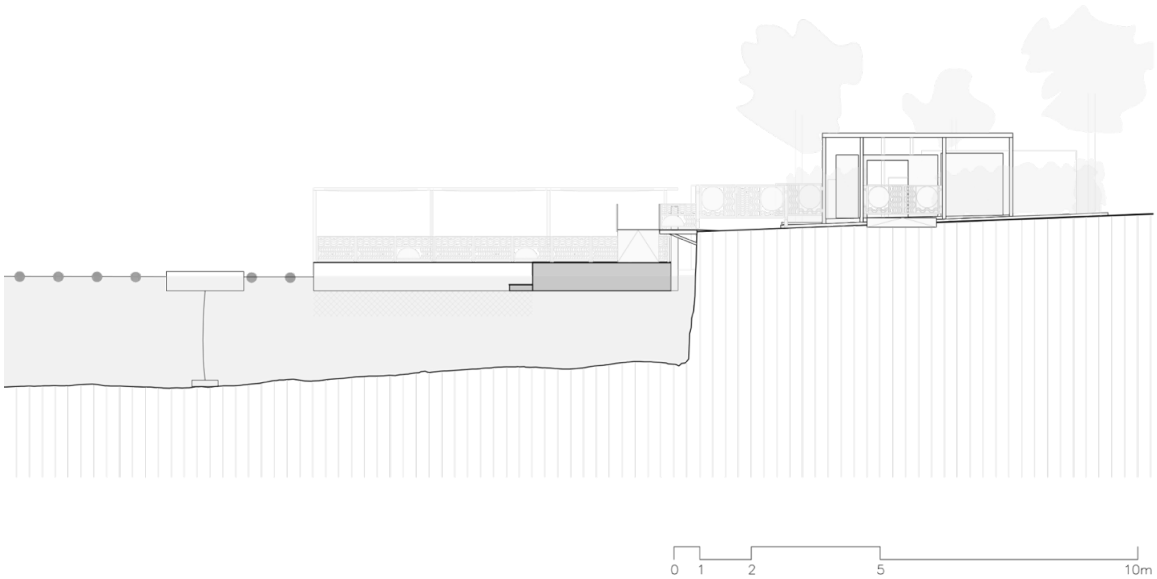
The first task for a developer of bathing facilities is to make the water accessible, at a level well below that of the quays. As this level varies over time (depending on low water levels) and space (the quays are not uniform), gently sloping walkways were chosen to make possible this descent. To accommodate the public, the solution adopted is based on large pontoon bridges, allowing safe and gradual access to the water. However, these facilities come up against a regulatory and normative framework that is unsuitable for swimming, and which will have to change in the future. As the water surface is usually only authorized for boats, floating facilities must be considered as such, with the standards and constraints this implies. The most striking illustration of this regulatory dissonance concerns freeboard – the distance between the surface of the water and the top edge of pontoons. While the aim for swimming is to have the smallest possible freeboard to make it easier for bathers to get into the water, the regulations specific to sailing impose a minimum freeboard height – to prevent passengers from getting too close to the water. Several months of discussions and collaboration between the competent authorities – the DRIEAT[3] and the Préfecture de Police de Paris – and experts, resulted in a uniform and coherent framework, which until now had not existed, for approving Parisian swimming areas. The adaptation of this framework had to be fiercely defended with the bodies in charge of navigation safety but was essential to offer an ergonomic layout for use.

Second, the sensory support provided to bathers as they enter the water is a determining

1. The public authority managing the ports of Paris, Le Havre, and Rouen.

2. Schéma d'aménagement fluvial de la Seine, DRIEAT, 2019.

3. D.R.I.E.A.T. Île-de-France: Direction Régionale et Interdépartementale de l'Environnement, de l'Aménagement et des Transports d'Île-de-France in charge of approving floating establishments.



^ Fig. 2 Cross-section of the Baignade en Seine de Grenelle project (Source: Mater Studio and Yacht Design Collective for the City of Paris, 2024).

factor in the desirability of the practice. The City of Paris is aware that there is still a great deal of apprehension about swimming in the Seine, a territory that is both familiar and distant, desirable and worrying. This work required particular attention to the design of the bather's itinerary, conceived as a gradual journey capable of reducing this apprehension. The distance created by the height between the quays of the Seine and the relative water level of the river is absorbed in the design of this progression (fig. 2). The path into the water is punctuated by a succession of thresholds: first the ramp, then the pontoon, the seat, the step and finally the water. The threshold imposes this progression and deals with the user's apprehension: This threshold connects, holds or does not hold. This perception is managed with the thickness given to each of the thresholds. For example, the facilities relating to reception and hygiene give a comfortable dimension to each of the sites, the thickness of which guarantees the modesty of the body. Conversely, the final threshold to the water is as light as possible to guide the bather toward the water. From these places, the water line becomes the landmark and initiates the desire for the shore (Nantier 2025).

The City of Paris has a new responsibility for bathing on a river that does not belong to it. This particularity gives absolute priority to the safety of swimmers.[4] The Seine falls within the public river domain of the state, which regulates access according to the activities it wishes to promote – unlike, for example, rivers in Switzerland, where access is free and equal, and bathing is at the users' own risk (Largey 2023). Under French law, all bathing in running water requires the adoption of a

4. Article L2213-23 of the Code général des collectivités territoriales.

^ Fig. 3 A cautious approach to the Seine: closed-pool architecture at the swimming site of Bercy, Paris (Source: Clément Brun, 2025).).

specific municipal by-law, by which the mayor assumes legal responsibility for the site. In issuing this order, the mayor of Paris confers the power to police bathing areas, which requires the local authority to implement the necessary measures to guarantee the safety of users. This responsibility is reflected in each of the boundaries drawn in the development of the sites: Delimiting the bathing area means defining another area that you want to make inaccessible without actually developing it. It is in this way that the typology of the enclosed pool is imposed through the prism of precautionary risk management around and within the finished space (fig. 3).

In French law, this new assumption of municipal responsibility is reflected in the legal classification applied to bathing facilities on the Seine. The *Establishment Receiving Public Access* (ERP) has become the reference tool, enabling the local authority to structure its action through a clear normative framework. The ERP delimits a precise time-space – an authorized zone, with set times – in which bathing is possible. The promise of swimming in the Seine does not mean that the river will be swimmable everywhere, every day. It also sets a maximum permissible number of people, depending on the buoyancy, stability and solidity of the launching structures. Finally,

the established perimeter of the ERP ensures that the number of people can be supervised. By including public safety as a primary condition for opening the site, it is the regulatory tool that reassures all those involved – elected representatives, technicians, emergency services and government partners – in the appraisal of a new object. However, while the ERP offers a familiar response to the issue of supervising bathing, it does so at the cost of regulatory complexity that can restrict freedom of use and make the appraisal process more cumbersome: For example, the floating pontoon will have to comply with safety standards and fire-fighting obligations inherited from the world of construction.

It is in this context that the City of Paris has chosen to introduce open-water swimming in a gradual and controlled manner. This strategy is essential if the city wants to fulfil its responsibilities but also ensure that bathing is safe and order is maintained on the river. While this model may seem restrictive from the point of view of the most experienced swimmers, it is also a lever for accessibility for a less experienced public. Be that as it may, the institutionalization of swimming by the Paris authorities opens the way for other river towns that will encounter similar constraints, particularly in terms of legal and regulatory issues.

Swimming in the Seine: A Step Toward Long-Term Planning?

Swimming in the Seine, in addition to the voluntarist political ambition to open it up to bathing that stems from the legacy of the 2024 Olympic Games, is part of a complex institutional context, structured by a series of restrictive rules laid down by the various players involved in the governance of the Île-de-France Seine Axis: the Préfecture d'Île-de-France, Voies Navigables de France and HAROPA Port. For example, three major precautionary principles strictly govern and supervise the use of the river and condition the establishment of new bathing sites: a ban on the simultaneous cohabitation of navigation and bathing, a compulsory 5-meter setback from the river channel and no quantitative impact on the volumes transported by freight navigation.

A field survey carried out in 2024 (Brun 2024) shows the extent to which these constraints have shaped the architecture and operation of the pilot sites from the outset. Naval engineering and conflicts over river sharing dictated the debates: The mobilized expertise focused on adapting to navigation conditions, rather than on the expectations or practices expected of users and the consultation cycles conducted by the City of Paris almost exclusively mobilized river transport stakeholders and administrative managers. The debate on opening times illustrates this: On the Bras Marie site, swimming could be authorized for only half a day. At the height of summer, on a very popular tourist riverbank, a very attractive swimming area will be created, but it will be inaccessible during the hottest hours of the day.

This paradox reveals a deeper tension: It is the management of the river as a shared space that has determined the forms of swimming, and not the other way round. From that point, swimming became an adjustment variable in a constrained space, rather than a fully assumed function of the river space. This choice was accepted from the outset by the City of Paris and the state actors involved, but may come up against the reality of use once bathing becomes popular with Parisians.

This is why a change of scale is needed: How can we plan for the legacy of bathing in Paris so that it becomes a lasting part of the functioning of France's leading commercial river? Here we explore the need to turn to a genuine long-term metropolitan planning strategy for bathing. If the constraints in central Paris have proven too difficult to overcome, other locations offer numerous opportunities for experimentation and diversification. The Bassin de la Villette and the Canal Saint-Martin are already home to swimming sites suitable for a wide range of visitors. In the Greater Paris area, the under-utilised oxbows of the Marne and Seine rivers are protected from navigation, making it possible to bypass these conflicts of use. A case in point is the Grenelle swimming site, where the Île aux Cygnes bisects the Seine, making one of the branches safe and establishing itself as a major recreational center. In Joinville-le-Pont, Maisons-Alfort and Neuilly-sur-Marne, urban bathing is becoming a lever for revitalizing former marinas that have fallen into disrepair. In Lyon, the bathing site will not be located in the Rhône, which is too restricted by navigation, but in a protected dock in the Confluence district, allowing for lighter development and freer swimming.

Copenhagen is a case study where, in just a few years' time, bathing in the harbor has become the capital's premier summer activity.[5] The city now hosts 14 official bathing sites with a wide variety of architectural features, including enclosed basins, open beaches on the harbor and sites integrated into the quays. Alongside these planned facilities, the city is also home to a broader network of informal bathing sites, resulting from spontaneous and free appropriation of port areas. One of the central lessons of this research is clear: A single bath with a unique architectural typology is not enough. Each of the official port baths with enclosed basins is systematically accompanied by informal bathing areas nearby. The analysis shows that these informal bathing situations are a consequence of the development choices made: They reflect a social demand that is not met by the available supply. Users are looking for a variety of experiences, including relaxation, spontaneity, sport and sociability, which a closed bathing area does not offer. Faced with this reality of massification and diversification of bathing uses, the response of public provision cannot be uniform. The solution found by the City of Copenhagen is therefore to offer several different types of infrastructure in the same area, depending on the urban fabric and the intended uses. In very busy areas, a large urban beach will channel informal practices and prevent uncontrolled bathing. On the other hand, in residential or family neighborhoods, an enclosed pool, with more supervision, will meet ritualized family and sporting expectations.

To date, however, the bathing facilities taking shape in the Paris region already seem to be limited to a single model: Almost all the projects launched on the Marne or the Seine are based on closed pools. While this option seems to be favored by local authorities for safety reasons, it excludes certain user profiles and, paradoxically, will accelerate the spread of unregulated informal bathing in the absence of suitable solutions. We need to move away from a one-size-fits-all approach and diversify our swimming facilities now.

5. Doctoral thesis by Clément Brun (2025), under the joint supervision of André Suchet and Kent Fitzsimons at the University of Bordeaux (LACES Laboratory) and the École Nationale Supérieure d'Architecture et de Paysage de Bordeaux (PAVE Laboratory).

^ Fig. 4 A morning swim at the Bras-Marie swimming site, illustrating key engineering and safety challenges: ERP classification, lifeguard supervision with yellow buoys, showers installed on floating pontoons, and the strict separation between the swimming area and the navigation channel (Source: Clément Brun, 2025).

There are a number of ways of doing this, including incorporating the backwaters and islands of the Seine and Marne rivers, marinas, docks and the canals of Paris (130 kilometers of which are co-managed by the local authorities in the Paris region) – all sites outside the main shipping lanes where lighter, more festive facilities could be developed: not just swimming, but also floating saunas, water sports centers and waterside restaurants. Thanks to this work of anticipation based on our doctoral thesis on Copenhagen (Brun 2025), the Belgian town of Mechelen, on the outskirts of Brussels, is working on a hybrid bathing site: a closed basin, combined with an open area on the canal delimited by buoys, welcoming both families and more free uses.

Conclusion: Feedback on the First Parisian Swimming Season (2025)

The 100,000 visitors welcomed during this inaugural season of urban swimming in Paris attest to the undeniable popular success of the 2025 Seine bathing initiative. These two months of experimentation already provide valuable lessons concerning modes of operation, architectural design and the processes of integration and awareness surrounding swimming in the river.

Water quality in the Seine, being highly dependent on weather conditions, fluctuated significantly during episodes of heavy rainfall. As a result, the sites were closed for nearly one-

third of the summer, as the season proved particularly rainy in early July and late August. Hydrocarbon pollution of unidentified origin also led to the closure of some sites on specific days. Furthermore, recently amended navigation rules were not immediately internalized: Violations of navigation restrictions were frequent at the Bras Grenelle site during the first weeks of operation, with vessels entering the branch during bathing hours.

Architecture and Legacy: Strengths and Areas for Improvement

The principal asset of the Grenelle site – beyond offering one of the most exceptional views in Paris – lies in its extensive pontoon surface, allowing bathers to sunbathe comfortably in the afternoons. Access to the water was also among the most fluid, thanks to the seating arrangements distributed across the bathing area. However, the resting islet, which could have been a genuine success, remained closed to the public due to stability concerns. At Bercy, the geometry of the protective structures contributed to creating a calm zone, enabling bathers to remain static and enjoy moments of conversation with friends.

The Bras Marie site was particularly appreciated for the lighter and more spontaneous approach it offered to open-water swimming. The possibility of changing "as on a beach" and the availability of showers directly on the pontoons contributed to a simpler, more streamlined experience, centered on the practice of swimming itself and the beauty of the surrounding environment (fig. 4).

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