

## Appendix 4 Improvement and alterations to existing swimming pools

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**(To be read in conjunction with the main document)**



# Swimming Pools

Updated Guidance for 2013



### Improvement and alterations to existing swimming pools

#### General

These notes give a general overview of issues to be considered in a swimming pool refurbishment project.

Projects will vary greatly and depend on the age, levels of maintenance and the location of the particular building. Many historic swimming pool buildings from the late 1800's and the early 1900's may have had a number of alterations over their lifetime, but still justify a major investment to ensure a continued future role as valued public facilities and local landmarks. Swimming pools that have been built more recently will also need various degrees of alteration and refurbishment to keep abreast of changes in legislation, user/operator needs and maintain customer appeal.

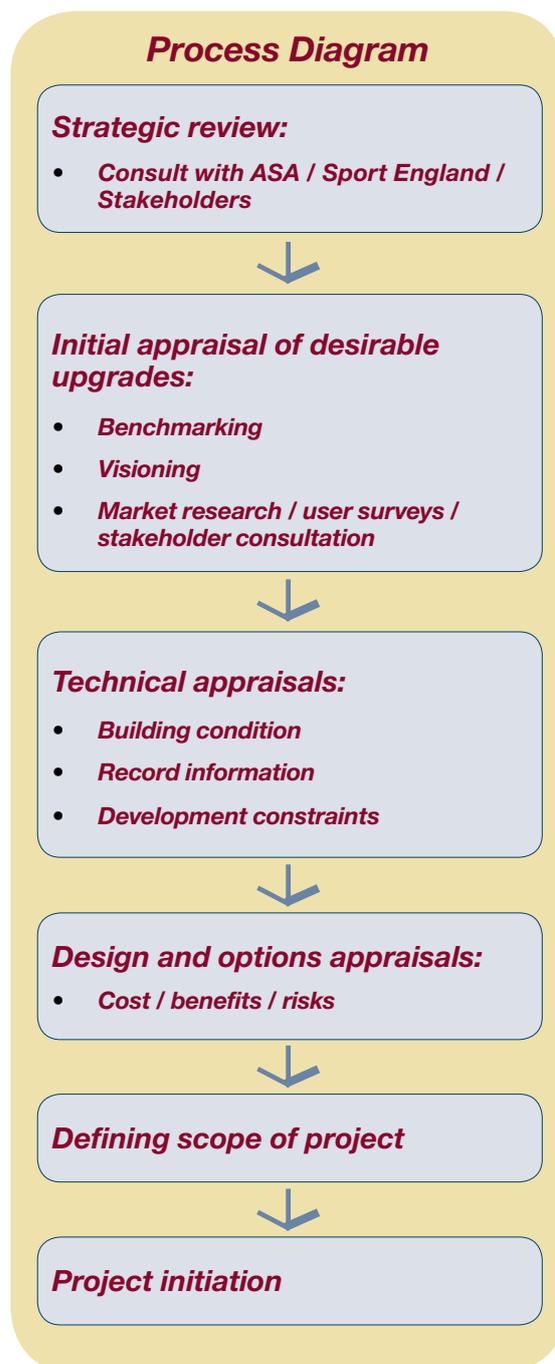


Historic renovation together with sensitive upgrade to meet current standards

Refurbishment should be seen as an ongoing part of the process to maintain the national stock of swimming pools.

Subject to individual maintenance regimes, many swimming pool buildings are likely to require major replacement of their services after 20 to 30 years and this can be a trigger for a more general upgrade of the facility.

With appropriate expertise and advice, most swimming pools can be successfully improved and remodelled, but this may not always be the right answer. It is recommended that a strategic review is carried out every 5 to 10 years<sup>1</sup> to determine whether it is advisable to revitalise the existing building or to demolish and replace it.



<sup>1</sup> See Sports Council Guidance Note *Swimming Pools-Improvement and Alterations to Existing Pools* and Sport Scotland Digest *Pool Refurbishment v Pool Replacement*.

### Fundamental questions

See main document Section 2 *Strategic Definition* and the planning advice on the Sport England web site to help address such fundamental questions as:

- Is the building in a suitable location and easily accessed from the surrounding communities?
- Does it still meet the needs of the local community?
- What additional new facilities might be beneficial?
- Does the building have the potential to be altered to provide these?
- What are the implications of competing facilities in the immediate area that might attract the same market?
- How does the performance of the existing building fabric and services rate against current standards?
- Is there potential to reduce the building operating cost?
- Can the cost of improvement or alteration, possibly with a long period of closure, be justified compared with a new build option?
- Should the existing building be closed, or converted to some other use?

### Initial assessments

See Sport England's *Swimming Pools Audit Check List* for making an initial assessment of desirable upgrades and refurbishments under the following headings:

- Site
- Building organisation
- Building services
- Building construction
- Building operation.

### Feasibility work

It is advisable that a detailed feasibility study should be undertaken by specialist consultants with experience of swimming pool design, construction and refurbishment before deciding on the scope of a particular project. This should be in conjunction with a market assessment, user surveys and consultations, to ascertain user's perceptions of the facility. Any constraints, such as planning or historic building considerations, should also be fully identified and their implications understood.

### Measured Survey:

The study should include a measured survey of the building. If the original as-built drawings and

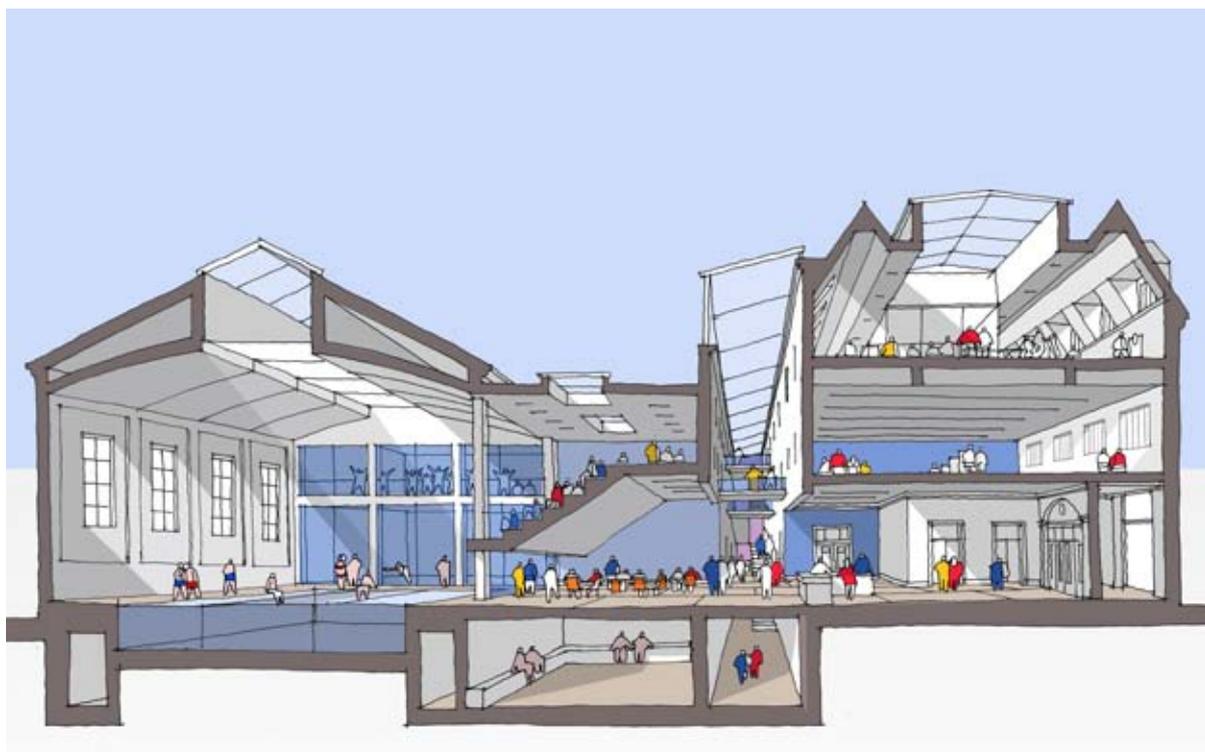


Figure 1 Image for public consultation on proposals to restore and upgrade an historic swimming pool building

specifications are available, they can provide useful guidance. It may also be useful to contact the original design team, if possible, for further information or clarification of details. However, a physical check will always be essential, as few buildings remain unaltered during their lifetime.

### Condition survey:

A thorough survey of the building fabric and structure, including the services (electrical, mechanical and engineering) should be undertaken. This should be carefully assessed to create a detailed schedule of the remedial work that will be required to keep the facility in use, whether or not other improvements are made. This will entail detailed inspection of key areas of the building to identify potential defects e.g. roof voids, concealed steelwork and may involve invasive testing.

It is also important to ascertain the cause of any defect discovered during the survey.

### Construction appraisal:

A constructional appraisal should be carried out on a building elemental basis - working through each of the external and internal spaces, checking the roof, wall and floor construction, including any fixtures and fittings, and deciding which part of the construction needs to be upgraded and how. This appraisal should include the condition of the existing pool tank(s). Additional specialist surveys and investigations may be required for key issues such as the construction/condition of the pool tanks or underground drainage.

### **Construction considerations**

**Understanding the form of construction and the potential life expectancy of key elements of the building is critical, particularly with regard to:**

- **Pool tank(s)**
- **Roof structure**
- **Environmental services.**

### Analysis of improvement options

It is recommended that a systematic approach is followed to the development of options for addressing the identified shortcomings in the building. The overall planning and design can be examined by tracing the route different user groups would take from the site boundary to the pool hall

and identifying any potential problems. A similar exercise can assess how easy the building is to operate. The quality for the 'user's experience' can be gauged from surveys/questionnaires of existing users and consultation with interested groups.

Typical items for consideration:

- **Upgrading the overall image:**  
To increase the appeal and viability of the facility through elements such as graphics, colour or planting.
- **Making the facility more accessible to all sections of the community:**  
For example, family/accessible changing cubicles, 'easy going' steps to access the pool(s) and submersible wheelchair lifts.
- **Alterations to the layout:**  
To increase customer appeal, and make the planning more efficient, and possibly save on staffing costs.
- **Alterations to key areas:**  
For example - to upgrade the changing areas to make them more comfortable and attractive to users.
- **Elimination of planning or detailed design features that adversely affect the facility:**  
To meet current safety and best practice standards.
- **Upgrading the building fabric and replacing services:**  
To improve the internal environmental conditions and meet energy efficiency standards.
- **Alterations of the pool tank configuration and profile:**  
To increase capacity and range of users, and for more flexible programming of uses (for instance, by introducing a movable floor, bulkhead, 'easy going' steps and submersible lift).
- **Extension of the existing building to provide additional sports and recreation facilities:**  
To increase the appeal and viability of the facility.  
  
To allow new uses to be made of the existing facilities - say, by upgrading the specification of a school pool to permit use by the wider community or providing essential accommodation such as community changing, a reception or an office.

### Project constraints

All the various constraints will need to be understood and factored into the design appraisals for the project. The following will normally be among them:

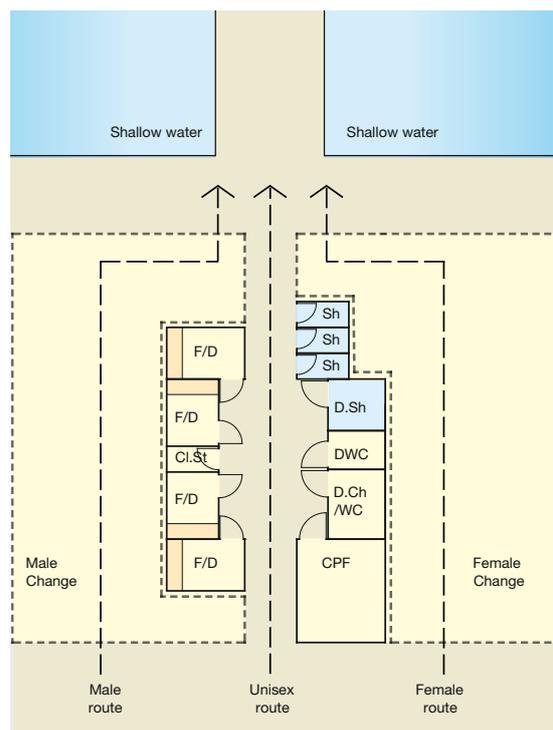
- The estimated cost of the work, including VAT and professional fees
- If the cost of improving the pool building is greater than 60% of the cost of building new, then a new build may be a better option<sup>2</sup>
- The implications of refurbishment may require a prolonged period of closure, resulting in reduction in public services and income
- The physical constraints imposed by the existing building - for example, structural and dimensional limitations, structural form and method of construction
- The physical constraints imposed by the surrounding site, including access roads, car parking, electricity and gas supply lines, drainage, existing buildings, trees and site boundary
- Existing ground conditions and water table level (if the building is to be extended or alterations are to be made to the ground floor and pool tank construction)
- The requirements of specific user groups such as schools and people with disabilities. If there are changes in floor level, it can be difficult to provide wheelchair access to various public areas. A compromise solution may have to be found, so it may be necessary to involve the key user groups in establishing what can or cannot be achieved to meet their particular needs
- The retention of some or all of the existing historical building features that are worthy of preservation
- Any planning constraints that have a bearing on the existing design.

### Examples of typical refurbishment projects

#### Changing:

User's perception of changing rooms can be improved in many projects by fresh decoration and replacement of lockers, benches and other items of equipment. However, there may be other challenges in relation to the space and circulation necessary to meet current standards. For example, the ease of disabled access, the number of showers and toilets and the safety of the entrance/egress to the swimming pool hall might also need to be considered.

There may be opportunities for a major reorganisation to village changing or the incorporation of a unisex route with family changing cubicles and disabled changing to be incorporated into the traditional male and female changing layout (see example illustrated in Figure 2 below).



#### Key:

Cl. St	Cleaners store
CPF	Changing Places Facility
D.Ch/WC	Unisex accessible changing room with WC
D.Sh	Unisex accessible shower cubicle
DWC	Unisex accessible WC
F/D	Family/disabled accessible changing cubicle
Sh	Shower

**Figure 2** The separate male and female changing room layout is re-organised and refurbished to allow wheelchair access and a unisex zone that has family/disabled changing

<sup>2</sup> From Sport England's Guidance Note 'Changing and related Amenities in Public Indoor Swimming Pools'.



New slip resistant tile floor, lockers and accessible cubicles to upgrade a 1980's changing area

### Pool configuration

A 33.3 m main pool can be re-configured by the inclusion of a movable bulkhead. This can create a 25 m training area and the option of a separate learner pool. The access ladders should also be recessed into the pool sidewall. 'Easy access' steps and a submersible lift could also be included.



Floating boom to divide the pool into separate areas

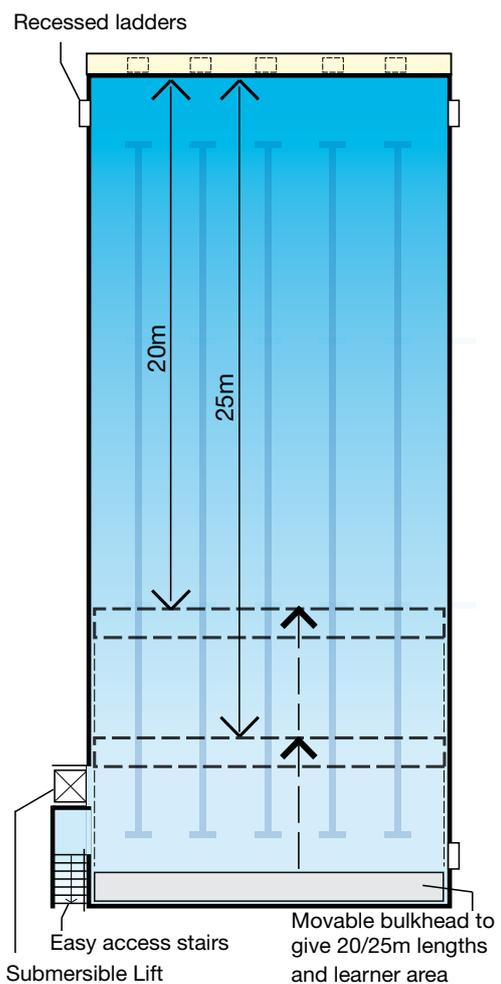


Figure 3 33.3 m main pool modified to include a movable bulkhead, to divide into two pool areas, and 'easy access' steps, submersible lift and recessed ladders

### Pool Edge:

Subject to the pool construction, the pool edge might be changed from 'freeboard' to 'deck level', to achieve better water hygiene (by removing a higher proportion of the polluted water from the surface) and to allow easier access/egress by swimmers.

There are proprietary pre-fabricated stainless steel re-lining systems that have an integrated deck level feature that can fit in the space of a conventional scum channel. Alternatively, the same result can be achieved with conventional *BS 8007* concrete and tiling.

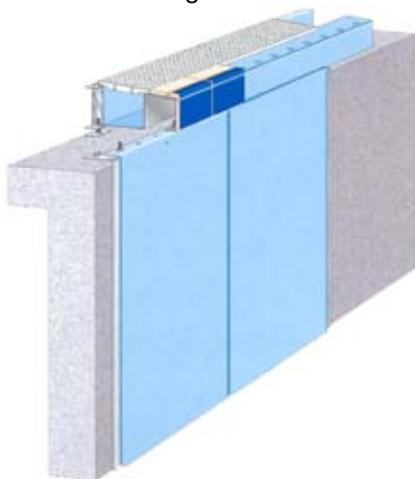


Figure 4 Some systems offer a deck level channel to replace an existing scum channel

### Refurbishment systems

Typically, refurbishment systems consist of stainless steel wall panels with a factory applied PVC finish and a loose laid PVC sheet to the floor. Such pool linings will marginally reduce the dimensions of the pool and it may then not conform to the necessary length for competition.

### New pool equipment

The upgrade of fixed and loose pool equipment can also have an impact on the use, flexibility and customer appeal of a pool.



Portable diving boards can add an interesting 'fun' element to a traditional pool that has sufficient depth of water in an area that can be segregated from other bathers



Temporary turning boards fixed to lane ropes to allow competition training