A HOW-TO GUIDE

WATER PLAY

EVERYONE CAN PLAY

NSW GOVERNMENT

Introduction

The Everyone Can Play guideline has transformed the way playspaces are planned, designed and managed. The three core principles of Everyone Can Play encourage thinking that moves from just considering accessibility to planning for true inclusion, by asking the questions:

Can I get there?

Can I play?

Can I stay?

To expand on this thinking, the NSW Government has prepared a resource titled *Place and Play.* It builds on the original Everyone Can Play principles by encouraging people to think about the deeper experiences that play can provide. *Place and Play* demonstrates that by planning and designing playspaces that are firmly rooted in place and informed by meaningful engagement, playspaces become powerful hubs for learning, community connection and celebration.

Expanding on the principles of 'Can I get there? Can I play? Can I stay?' *Place and Play* encourages people to ask themselves:

- **Can I connect?**
- **Can I discover?**
- **Can I celebrate?**

This guide shows how incorporating water play into your playspaces can create spaces for connection, discovery and celebration. It provides useful tips and advice to help you create your next water playspace or incorporate water play into your existing playspace for everyone to enjoy.

The benefits of water play

Water play is a great way to connect people to place, and can turn your playspace into a place of connection, discovery and celebration.

Water play is a great way to stay cool and have fun. It also has many social and developmental benefits — helping to develop fine and gross motor skills across age ranges, coordination and problem-solving skills, and providing opportunities to explore the senses.

As an open-ended activity, it encourages imagination and creativity. And when water play becomes a group activity, it encourages children to engage in social and cooperative play. Gentle water play is restorative, relaxing and calming.

However, access to water for play varies depending on where people live, their cultural background, socioeconomic factors and ability. By incorporating water into our playspaces, we can offer everyone in our community the opportunity to experience the joy and benefits that water provides — regardless of age, ability, background or postcode.

Water play makes playspaces more interesting and distinctive by drawing on local stories and unique characteristics of place. When we incorporate existing site features and community stories, we create playspaces that reflect and celebrate our people, culture and environment.

Photo by Bec Ho

Photo by Andrew Seaman

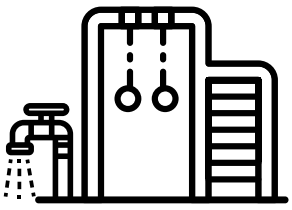
What is water play?

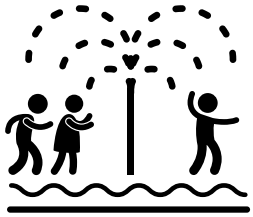
Water play is any activity that allows people to manipulate or appreciate water through actions like splashing, sprinkling, spraying, watering and more. Elements can be as major as a splash park, or as minor as a tap or bubbler. Water play doesn't always mean you need to get wet!

When thinking about the possibilities for water play, it helps to imagine a sliding scale. This scale includes a broad range of opportunities for design and intervention to allow everyone access. Whatever your budget, context or vision, you can incorporate water play into your playspaces. Water play can be experienced in completely different environments — from small suburban playspaces to large national parks.

When considering water play elements in the early design phase, think about long-term maintenance and operation costs — especially for large water playspaces. This will influence the range of water play elements you include and where they will be located.

The water play sliding scale





Playspace with simple water play elements

Water play opportunities

Splash park with complex water play elements

Designing so Everyone Can Play

Designing water playspaces that everyone can enjoy is not hard to do. When planning your playspace, just remember to be guided by the Everyone Can Play principles of:

Can I get there?
Can I play?
Can I stay?

Consider including level access to water play activities, taps at different heights, raised troughs, accessible surfacing, easy push-buttons or large levers to control or pump water so everyone can enjoy water play.

You can also think about providing a range of wet and dry water play experiences. Remember shade, dry supervision areas with supportive seating, and accessible facilities.

It's also important to consider sustainable water use beyond the play experience. Build in capability to time water use and make sure water can be turned off in cold weather, rain and drought.

Water play vs water recreation

In NSW we are lucky to have access to many natural bodies of water, such as creeks, rivers, wetlands, lakes and coastlines. These environments all offer wonderful recreation and play opportunities, but come with greater risks and supervision requirements.

Water play in playspaces can provide a safer, more controlled environment to interact and play with water. Water play also enables people access to water in areas without natural bodies of water.

Step one

Identify and understand your site

When planning water playspaces, it's important to identify and understand your site and local environment.

Photo by Christian Bowen

THINGS TO CONSIDER

What do you want this playspace to be and where will it be located?

What is currently available in the local playspace network and what need are you trying to meet?

Will it attract visitors from the surrounding areas, or is it a small upgrade to an existing local playspace?

What Country is the site on?

Who lives here and what does this place mean to them?

What is the history of the site?

Are there any stories that can be told through water?

Local Aboriginal communities, Aboriginal Land Councils and recognised knowledge-holders have deep cultural connections to Country. By engaging with Traditional Custodians, Aboriginal Elders and leaders, we can gain a better understanding of the Country we work on, and the significance of specific elements in the site environment.

Is there an existing water source on site? (Through a water line or access to natural water.)

If not, does your budget allow you to run services to the site?

If you answer no to both, don't worry. There are lots of water play opportunities you can explore!

What are the features of the existing site?

Does the topography offer opportunities for water movement?

What existing natural features can be integrated in water play design? (Rocks, creek beds etc.)

Are there existing channels you can use?

Is there a location on site that can hold water temporarily after rain?

How does any existing playspace function in the space?

Are there any topographical issues to consider? (Such as flooding.)

There are varied health and maintenance requirements depending on the type of water play you choose. Refer to pages 22 and 23 for different types of water and associated requirements.

Photo by Jeremiah Lawrence

Suggestions

- Consider water play at the beginning of the design process to better utilise characteristics and existing infrastructure. This will ensure more sustainable, manageable solutions.
- It is important to think about the health and maintenance requirements associated with different types of water play.
- Swales and small creeks that hold water for a short period after rain can be used for water play by incorporating ramped walkways and decks, or trails along the water course.
- Indentations in rocks or other surfaces can capture and hold water for play.
- A water source at the top of a natural slope can be used for water play as it moves its way downhill.
- Low flow taps with push-buttons can be used to deliver water onto a hard area with dams and levers for control.
- Water that runs into raised troughs allows easy access for everyone, along with other items such as buckets, water wheels and rills to explore.

No water access on site?

If you don't have access to water on site, you can explore other options that capture and funnel rain.

Rock or concrete carvings can create fun channels that capture water and show its journey after rain. By utilising, rocks, boulders and concrete, you can create a dry creek bed that imitates a creek and will periodically fill with water. Elements that measure or respond to rain, such as gauges and rain wheels, can be used to celebrate rainfall in dry areas.

Best practice case study

Be creative with limited water

VICTORIA PARK, BALLARAT, VIC

The unique water playspace in Victoria Park, Ballarat, depicts the flow of water from the mountains to the sea. It conveys the scale of this process through carved concrete, which leads the water through indented channels towards a drain at the other end. This cost-effective feature creates a water play area that fosters creativity, learning and imagination. The surface also ensures accessibility for everyone. Small channels like this only need small amounts of water to create the intended effect, making them suitable in situations where water is limited. Users can move the flaps and gates, diverting water onto other routes to provide a fun and educational experience about natural and constructed water flows.

Photo by Bec Ho

Step two
Get creative

Time to get creative and think about the possibilities of different water experiences you want to provide in your playspace! In this stage, you want to focus on the experiences your playspace could offer, rather than just equipment.

THINGS TO CONSIDER

What sensory and temporal experiences will deepen connections with water?

What smells, textures, temperatures, sights and sounds can the manipulation of water provide?

What other materials or structures can enhance this experience?

Are there educational opportunities for learning about water and the history of water on site?

How can experimentation with water flows be included?

How can water play build scientific enquiry and problem-solving skills, such as learning about volume and weight?

How can water play encourage creative and imaginative play?

What other items can be added to the water to stimulate curiosity and creativity? (Sand, pine cones, leaves etc.)

How can equipment and features enable multiple users to play at once?

How can the water play experience encourage cooperation?

How can people choose to get wet or stay dry while playing together?

Suggestions

- Water reacts with different materials in different ways. Consider what other materials are on site or can be used to maximise play and sensory opportunities. Rocks, sand, mud, timber and stone all react with and reveal different qualities of water. For example, mixed sand and water allow experimentation with guiding and moving water, due to the way water affects the consistency and permeability of sand.
- Pumps and wheels provide exploration opportunities for moving water.
- Mixing loose play with water can encourage imaginative play, such as leaf races.
- Jets that cause splashes and noise can enhance the sensory experience of water.
- Misting elements are great ways to enable people to cool down safely in hot weather.
- Flows of water can be diverted and affected by gates and blockages, allowing for experimentation.
- Raised water troughs and stations allow multiple users to interact and play together. Provide clear paths with enough space for parents and carers to stand or sit alongside users to enable a choice of wet or dry play.

Supporting infrastructure

Infrastructure to support the Everyone Can Play 'Can I stay?' principle is particularly important for water playspaces. Think about providing changing facilities, hardstand areas for drying off, dry seating outside splash zones and shade sails.

GET CREATIVE

Best practice case studies

Use water thoughtfully

LIZARD LOG PLAYGROUND, WESTERN SYDNEY PARKLANDS, NSW

The design of Lizard Log Playground is underpinned by a strong sustainability strategy, which teaches users about the value and importance of water. Recycled water is used through a play pump water course system — transforming rising squares of decking into a playful feature.

The pumped water is captured in a holding vessel before winding down a steeped rill and draining into the soil at the bottom. This flow of water provides irrigation for nearby native plants, while limiting the need for specifically built drainage.

Photo by Western Sydney Parklands

Make play pieces accessible

PAPERBARK PLAYGROUND, PARRAMATTA PARK, NSW

A series of tables and troughs at different heights and levels brings together water and sand play that everyone can access at Paperbark Playground in Parramatta Park. Water travels along the elevated tables, down through turning wheels, and into troughs of sand. The use of both sand and water offers children countless ways to play, whether wet, dry, mixed together, or pitting the two against each other. Troughs provide a great opportunity to not only contain and identify areas for water play, but also enable designers to sufficiently supply shade and necessary resources. In Paperbark Playground, cover is provided over the water play area to ensure sun safety and longer stays.

Encourage exploration through pumps, wheels and rills

MILTON PARK, MACQUARIE FIELDS, NSW

Playspaces with pumps, wheels and rills offer a great opportunity for people to explore how water moves. At Milton Park, there are many ways to pump water that flows into a simple, carved sandstone block, before draining through different sized channels that run along its surface. Users can watch, learn and explore how water moves, depending on the pump and pumping method they use. Milton Park's smooth, flat, level cement footing and raised blocks provide a great example of water play that everyone can access and enjoy together. Smaller playspaces can achieve a similar outcome by simply using a bubbler.

Photo by Campbelltown City Council

Step three

Delivering and maintaining

Water play is a broad concept. Decide what you want your water playspace's scope to be, based on your site, budget, resources and goals. It doesn't need to be costly or difficult. Water play can be as simple as thinking differently about the selection and detailing of drinking bubblers!

Drawing from the outcomes of steps one and two, what is the scope of your playspace?

What water play elements do you want to include?

What resources do you need to deliver the playspace?

You might have internal council resources or local community resources, such as men's sheds, the local water catchment authority, or local creatives and makers that you can include.

Do you need an expert to assist?

If you don't have internal or community resources, or your project scale needs an expert to assist, think about engaging a landscape architect to help. They can work with you and the community through a co-design process by conducting a site analysis, identifying opportunities, and creating a design that works for your needs and budget.

Suggestions

- Provide water play experiences relative to your playspace scale. Small local playspaces may only need a simple addition such as a water lever. Large regional playspaces may benefit from a range of different water play types. This can include anything — from creative use of water bubblers or taps, dry creek beds, water capturing devices, rain wheels, pumps, water troughs, water channels or outdoor showers, to misting stations, streams, shallow ponds, jets, splash pads or bespoke water play equipment.
- Head to the Australian Institute of Landscape Architects (AILA) website for a list of registered landscape architects and other resources.
  www.aila.org.au
- Other resources to help you with your water playspace include:
  - **Water quality requirements for public spaces:** *NSW Public Health Act 2010* and *Public Health Regulation 2012*
  - **Fencing requirements for water depth over 300 mm:** *Australian Standard 1926.1-2012: Swimming pool safety, Part 1: Safety barriers for swimming pools*
  - **Slip resistance classification for surfacing:** *Australian Standard AS4586 2013: Slip resistance classification of new pedestrian surface materials*

Water testing and safety

The *NSW Public Health Act* defines splash parks with water features or fountains that are intended to be bathed in for recreational purposes as swimming pools. So these splash parks have the same testing and safety requirements as swimming pools. Water play that is not intended for bathing and uses potable water can reduce the need for testing. Contact your local public health unit for further advice. Refer to pages 22 and 23 for different types of water and maintenance requirements.

Water depth

Any water depth poses a drowning risk, with an increased risk for water depths up to 300 mm. Fencing is legally required if there is any water over 300 mm in depth. For all water playspaces (small, medium and large), water should be able to freely drain and not pool for long periods of time. For large water playspaces, more than one drainage point is required in case blockages occur.

Photo by Bec Ho

Best practice case studies

Consider appropriate amenities

DEERBUSH PARK, FAIRFIELD, NSW

Deerbush Park provides a large splash pad area with ample space for different experiences, including ground jets, misting elements, tipping buckets and curtains of water. With each feature offering a different interaction, users can explore different forms, velocities and volumes. As splash pads like this often attract lots of visitors, they need to be supported with good amenities and resources. Accessible toilets, seating, picnic settings, shade and ample car parking are just some of the amenities that make this playspace very popular.

Scale water play experiences

TUMBALONG PARK, DARLING HARBOUR, NSW

Tumbalong Park is a large regional destination playspace that has a range of different water play experiences suited to its scale and high visitation rates. Depending on preferences for engaging with water, users can choose to get wet by wading in the shallow stream or playing with jets and fountains. Alternatively, people can stay dry by playing with pumps and troughs, and exploring the space as water moves through wheels, rills and dams. All these elements can serve as ideas for other playspaces. A smaller playspace can use a single item such as a pump and a carved sandstone block. While Tumbalong Park uses a reticulated water system, some options can be replicated using potable water.

Different types of water

Water play can use a variety of water types including potable, reticulated or recycled water. Each type has different applications and maintenance requirements.

1. **Potable water** is the supply of drinking water through the mains, like in a residential house. Water needs to be drained from a playspace, which can be achieved by draining into a garden bed, or a stormwater or sewer system. A plumber is required to provide the potable water connection and connect to the stormwater or sewer system. There are less maintenance requirements for potable water than other types.

2. **Reticulated water** is a system of reused water which is collected, UV or chemically treated, and reused. Reticulated water is often used in splash parks. The system is topped up with a potable water supply when required. Stormwater diverters are needed to keep rainwater and foreign materials out of the balance tank when the system is not in use. A specialist is required to document, install and maintain a reticulated water system. Most ongoing maintenance is caused by blockages.

3. **Recycled water** is a similar system to reticulated water, however it is not UV or chemically treated. The reuse of recycled water poses a higher risk from pathogens within the water, requiring strict routine maintenance.

Water play maintenance

Despite the benefits of water play, it's normal to have concerns about ongoing maintenance. With a little thought and smart selection of materials, we can minimise these doubts.

Work with natural drainage.

Observing and using natural drainage works across the site ensures loose materials, such as sand and mulch, aren't washed away or onto access paths.

Keep water play simple.

Water play doesn't have to be expensive! Simple items, such as a drinking bubbler or a push-button tap, are great options. Drainage can also be used as part of water play.

Incorporate potable water.

Using potable water efficiently through push-button operation reduces the need for water quality testing. To improve sustainability, consider the ability to turn off or reduce water during drought events or cooler months. To conserve water for large play elements, consider limiting hours of use.

Think of the weather.

Water play elements that are dependent on rainfall are flushed out by weather events — reducing maintenance needs.

Consider playspace placement.

Large scale splash parks *do* require routine water testing and maintenance, just like a swimming pool. Some councils choose to locate splash parks next to pool facilities to maximise existing resources, while providing a free, accessible option for everyone.