

## RISK REGISTER RISK CONTROLS AND ASSESSMENT

- Step 1: Identify the Risks as Risk Statements  
 Step 2: Describe the existing Risk Mitigation Controls  
 Step 3: Evaluate the Risk and the Risk Controls using the table below  
 Step 4: Do we accept the Risk? Is the current Risk Control as effective as it could be?  
 Step 5: If the answer is no to either question then complete the "Further Action Column"  
 Step 6: Decide who is responsible for the Further Action.  
 Step 7: Report on this activity in the monthly Business/Region Review and review the Risk Register each three months.

### Risk Mitigation Team for Rainbow Springs & Kiwi Encounter: April 2018

David Hennigan	Steve Tregilgas	Mark Paterson	Emma Bean
<b>RISK SCORING CHART</b>			<b>Impact</b>
<b>Catastrophic</b> Multiple deaths, operational disaster, and/or Profit impact >\$2M in any one year, \$7.0M asset impact which would prove terminal for the company	100	50	100
<b>Major</b> Death/extensive injuries, loss of operative capability, and/or Profit impact \$500K to \$2M in any one year, \$1.5M to \$7.0M asset impact	40	20	40
<b>Moderate</b> Any serious harm or injury (but not resulting in permanent disability), and/or Profit impact \$100K - \$500K, Asset impact \$250K to \$1.5M	15	7.5	15
<b>Minor</b> First aid treatment, some asset or property damage, and/or Profit impact \$25K to \$100K in any one year, assets impact from 75K to \$250K	7	3.5	7
<b>Insignificant</b> No injuries and/or Up to \$25K profit impact, \$75K asset impact	1	0.5	1
	<b>Probability</b>	0.5 Very unlikely 20 Years	1 Unlikely 10 Years
		3 Moderate likely 5 Years	6 Very likely Yearly
		10 Almost certain Monthly	

Identified Risks	Analysis & Evaluation		Existing controls described & evaluated		Further Actions	
	Risk Description	New Rating	What we do now to manage this risk	Risk Accepted & Current Control effective? (Yes or No)	What we will do to reduce/manage/control this risk  What Opportunities exist for improvements	Assigned To
List the EVENT and the EFFECT(s) as a Risk Statements(s)...., "There is a risk that <INSERT EVENT> will <INSERT IMPACT> in/to/on/for/of <INSERT VULNERABLE ENTITY>.						
New to market competitor.	7.5	<ul style="list-style-type: none"> <li>Continue to advance the park in terms of presentation, offering, species, guided experience and interactive opportunities for our visitors</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Have a voice in the business community and through the local chamber of commerce and RTO relationships keep abreast of developments proposed or otherwise in the community.</li> </ul>	MM, BM, SM	
Significant changes to the Amusement Devices Act leading to a change in facilities, operation or design, safety or otherwise on the Big Splash Ride	15	<ul style="list-style-type: none"> <li>Proactively asses ride design and safety features annually with ride designers and manufacturers together with third party engineer.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Continue open communications with independent engineers with a view to understanding any change proposals within MBIE and Worksafe.</li> <li>Ascertain membership to and attend annual conference of the AALARA.</li> </ul>	BM	
Increases pollutants/nitrates in ponds, streams and lakes leaching into streams feeding lakes	1	<ul style="list-style-type: none"> <li>Water catchment agreement taking water from the Waiwhero stream to flush through the Big Splash and associated ponds to keep nitrate and faecal counts down.</li> <li>Regular testing of water to indicate any potential pollutants.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Systematic washing of all pools to ensure any nitrate build up is minimal and within accepted release levels.</li> </ul>	BM, Maint Manager	
Severe Storm Damage e.g. Redwoods down	45	<ul style="list-style-type: none"> <li>Arborist reports every three years.</li> <li>Procedures in place to close park in and after severe weather</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Utilise the anemometer measuring wind speeds and a visual of the tree tops as per SOP to assess and manage areas of park closure as required</li> </ul>	BM/OPS	
There is risk of an earthquake affecting the park. This could result in loss of spring, demolition of building, toppling of	90	<ul style="list-style-type: none"> <li>Regular emergency evacuation for staff</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Porta loos could be sourced. After any earthquake, underwater viewer would need to be thoroughly inspected.</li> </ul>		

redwoods, damage to sewerage lines and water supply, loss of power, damage to aviaries resulting in loss of birds, compromise of underwater viewer.				<ul style="list-style-type: none"> <li>Earth quake notices to be placed on H&amp;S noticeboard.</li> </ul>	
There is risk of Asian Bird Flu or World pandemic	15	<ul style="list-style-type: none"> <li>Rainbow Springs has procedures in place that cover all operations.</li> <li>Borders would very likely close.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>DoC will dictate procedures with all birds</li> <li>Separate bird flu pandemic plan completed</li> </ul>	
Sabotage	1	<ul style="list-style-type: none"> <li>Staff vigilance</li> <li>On site security staff (VR)</li> <li>Security alarms in place</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Monitor integrity of security fence surrounding perimeter</li> <li>Regular staff training</li> </ul>	
Power outage	3	<ul style="list-style-type: none"> <li>Generator would be placed in Kiwi Encounter Husbandry.</li> <li>Procedures to evacuate and close retail areas.</li> <li>Have torches available for KE static and nocturnal house</li> <li>Automatic backup server batteries in place</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Emergency back-up lights (two hour) for the night trading periods</li> <li>Hire generator</li> <li>Post refurbishment the hatchery facility will have solar and a Tesla battery to sustain incubation in the event of power failure.</li> </ul>	Senior Executive policy change to be reviewed
Fire: <ul style="list-style-type: none"> <li>Retail</li> <li>Admin</li> <li>Cafe</li> <li>Park</li> <li>KE facility</li> </ul>	40	<ul style="list-style-type: none"> <li>Rainbow Springs buildings are a no smoking area.</li> <li>Fire alarms are linked to security monitoring company.</li> <li>Greater risk at night when fewer personnel are present.</li> <li>Fire hoses located within the park.</li> <li>Regular irrigation carried out in park.</li> <li>Fire hoses strategically placed. Fire hydrants available outside Café and in Fairy Springs Rd area</li> <li>Staff aware to keep area free of fronds, boxes etc. Fire alarms in place</li> <li>Check existing alarms</li> <li>Wormald holds alarm testing monthly</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Fire dept. can draw from Rainbow Pool.</li> <li>On site pump available.</li> <li>Static fire hoses to be placed in various areas in park, in times of high risk.</li> <li>Irrigation installed in outside runs</li> <li>Monitor housekeeping practices</li> <li>Review insurance</li> <li>Continue to review safety and security.</li> <li>Remove all rubbish from surrounds</li> <li>Relocate flammable material</li> <li>Annual fire &amp; extinguisher training conducted</li> </ul>	

		<ul style="list-style-type: none"> <li>• Fire Extinguishers are located throughout the buildings, checked 6 monthly.</li> <li>• Evacuation procedures held six monthly – five separate fire evac plans registered with Fire Service</li> </ul>			
Fire threat from Mount Ngongotaha	15	<ul style="list-style-type: none"> <li>• Hill boundary is sprayed 6 monthly as a fire break.</li> <li>• Park would be closed.</li> <li>• All areas would be thoroughly watered down</li> </ul>	Yes		
Terrorism Local World Terrorism resulting in loss of visitors to NZ	15	<ul style="list-style-type: none"> <li>• Monitor visitor arrivals and forecasts</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• To be reviewed regularly</li> </ul>	
Significant volatility within the Global Financial Environment causing significant negative impact on key market channels.	40	<ul style="list-style-type: none"> <li>• Monitor visitor arrivals and forecasts and maintain close contact with key wholesale and inbound suppliers, TNZ and other Govt agencies.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• Manage downturn through appropriate cost control mechanisms.</li> <li>• Forge and build new domestic supply lines.</li> </ul>	
Zoonosis outbreak affecting staff	7	<ul style="list-style-type: none"> <li>• Maintain protocols for animal welfare and hygiene standards</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• Monitor protocols with DOC</li> <li>• Internal protocols &amp; staff training</li> </ul>	
Disease resulting in loss of all kiwi, or quarantine of facility	45	<ul style="list-style-type: none"> <li>• Rainbow Springs has procedures in place, which will cover all operations.</li> <li>• Borders would very likely close.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• Consider placing the incubating eggs in two separate incubators</li> </ul>	
Loss of birds due to poor enclosure maintenance	3	<ul style="list-style-type: none"> <li>• Daily checks of aviaries</li> </ul>		<ul style="list-style-type: none"> <li>• Enclosure repairs to be checked by RS personnel</li> </ul>	
Disease resulting in loss of animals and or birds in park	15	<ul style="list-style-type: none"> <li>• Maintain protocols for animal welfare</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• Monitor protocols with DOC</li> </ul>	
Loss of licences (DoC) for infraction of regulations by RS or KE	15	<ul style="list-style-type: none"> <li>• Maintain licenses and achieve at least minimum protocols for animal welfare</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• Monitor protocols with DOC</li> </ul>	
Loss of species through ZAA directive or animals rights campaign	7.5	<ul style="list-style-type: none"> <li>• Maintain membership to ZAA and through positions on committees and boards keep abreast of sentiments and direction in the animal husbandry space.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• Monitor advisory directives and accepted husbandry directives from ZAA and other worldwide governing bodies through current affairs.</li> </ul>	
Negative Publicity	21	<ul style="list-style-type: none"> <li>• BM &amp; MKT M to manage media, no other staff to comment</li> </ul>	Yes	<ul style="list-style-type: none"> <li>• Monitor Social Media sites and newspapers for negative word of mouth: respond promptly</li> </ul>	

				<ul style="list-style-type: none"> <li>Staff need to be advised that comment may only be made by BM and Mkt M</li> </ul>	
Drowning in Springs waterways. Risk to children is greater	20	<ul style="list-style-type: none"> <li>Signage present, open waterways.</li> <li>Children must be accompanied by an adult</li> <li>Greater risk at night when fewer personnel are present.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Need sufficient staff trained in CPR.</li> <li>Consider disclaimer on brochure in the future.</li> <li>Consider reviewing the upper fence at underwater viewer.</li> <li>Cameras in situ on Big Splash ride</li> <li>Identified open water edge protection and landscaping underway April 2018.</li> </ul>	
Major work-related injury to employee	15	<ul style="list-style-type: none"> <li>Training programmes. H &amp; S plans and procedures. ACC programmes for early return to work. ACC certification.</li> <li>Full training for all equipment provided and signed off.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Monitor, promote safety awareness, reinforce safety culture</li> <li>Hazard registers updated</li> <li>OSH meetings conducted monthly</li> <li>Mock crisis conducted annually</li> <li>OSH training conducted annually</li> </ul>	
Personal attack on staff on late shift	15	<ul style="list-style-type: none"> <li>Security monitoring</li> <li>Night Manager now in place Security night lights.</li> <li>VR Security on site</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Staff 'offender' training</li> <li>Monitor and review</li> </ul>	
Risk to staff or customers through incorrect storage of chemicals or fuel on site	7	<ul style="list-style-type: none"> <li>Safety notices. certificate.</li> <li>Safety Data Sheets available.</li> <li>Substances. No smoking area</li> <li>Ongoing training of staff using chemicals.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Ongoing key accountability for Maintenance &amp; Compliance Manager and KE Manager</li> </ul>	
Moderate to serious injury to coach passengers, pedestrians or employees	15	<ul style="list-style-type: none"> <li>Speed limit, speed bumps, stop signs and drive slowly signs on site.</li> <li>Public liability insurance.</li> <li>Staff using PPE when working in parking areas</li> <li>Installation of pedestrian crossings.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Advise coach drivers and supplier van drivers of limits.</li> <li>Have campervans park in bus area</li> </ul>	
Injury to visitors on site through negligence	15	<ul style="list-style-type: none"> <li>Health and Safety Committee walkabout inspections.</li> <li>Public liability insurance.</li> <li>H&amp;S audits.</li> </ul>	.Yes	<ul style="list-style-type: none"> <li>Ongoing training and vigilance in HSE</li> <li>Gemba walks</li> <li>Hazard register</li> </ul>	
Significant misappropriation of funds or goods	7	<ul style="list-style-type: none"> <li>Internal control reviews. Regular security pin and safe combination changes</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Ongoing monitoring and audit.</li> </ul>	

Resignations of key personnel and or IP	21	<ul style="list-style-type: none"> <li>Staff retention review.</li> <li>Personal Development Plans.</li> <li>Career opportunities.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Job satisfaction emphasis.</li> <li>Work/life balance.</li> <li>Focus on staff retention,</li> <li>Loss of company expertise.</li> <li>Succession planning and management in wildlife and maintenance through organisational structure.</li> </ul>	BM
<b>Big Splash</b> Operation Malfunction of ride or animatronic components causing significant periods of 'down –time'.	21	<ul style="list-style-type: none"> <li>Establish clear guidelines for daily checks and routine maintenance.</li> <li>Preventative maintenance programme in operation, reviewed annually</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Employ regular service checks by key suppliers to ensure key componentry is maintained at the highest possible standard.</li> <li>Implementation of a Reliability Centred Maintenance Programme and Critical Parts register.</li> </ul>	
<b>Big Splash</b> Operation Risk of injury to guests through improper use while on ride	45	<ul style="list-style-type: none"> <li>Ensure signage is in place which clearly identifies the safety requirements for the ride with Ride Operators ensuring all people are safely in position before each boat departs.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Safety messages replaced in boats each year (as required)</li> </ul>	
<b>Big Splash</b> Operation Risk of Mechanical Maintenance costs becoming too cost prohibitive to continue operation of ride	45	<ul style="list-style-type: none"> <li>Gain adequate understanding of costs of maintenance</li> <li>Reduce operational times (reduce ride work hours)</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Alternate plan/use for the ride (if costs become too prohibitive)</li> </ul>	
<b>Big Splash</b> Operation Risk of injury to guest/s due to malfunction of animatronic component.	15	<ul style="list-style-type: none"> <li>Ensure fail safe mechanisms are in place and the maintenance schedules clearly outlined by the suppliers.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Maintain a Malfunction Register to document every occurrence where a component has failed to operate as designed.</li> </ul>	
<b>Big Splash</b> Operation Risk of serious injury or fatality due to the malfunction of a ride component.	50	<ul style="list-style-type: none"> <li>Establish clear guidelines for daily checks and routine maintenance.</li> <li>Establish a mitigation programme to address each issue.</li> <li>Establish position of full time Maintenance Manager to plan all R&amp;M work.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Ensure all manufacturer's requirements for the safe operation are known.</li> <li>Ensure that the manufacturer has supplied a maintenance manual and establish a process to confirm that all maintenance is carried out as specified at the required times and to the required standards.</li> <li>Employ regular service checks by key suppliers to ensure key componentry is maintained at the highest possible standard.</li> </ul>	

				<ul style="list-style-type: none"> <li>Implementation of a Reliability Centred Maintenance Programme and Critical Parts register.</li> </ul>	
Free Flight Bird Show. Risk of Campylobacter to Trainers and Handlers through general exposure (faeces).	0.5	<ul style="list-style-type: none"> <li>Risk has been assessed by a panel including Wildlife Manager and RS Vet on 21 Sept 2011 as being Not a Risk</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Keep dust down to ensure there are no dry aviaries.</li> </ul>	
Free Flight Bird Show. Risk of Salmonella to Trainers and Handlers general exposure (faeces).	0.5	<ul style="list-style-type: none"> <li>Risk has been assessed by a panel including Wildlife Manager and RS Vet on 21 Sept 2011 as being a Negligible Risk</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Employ basic hygiene processes</li> </ul>	
Free Flight Bird Show. Risk of Chlamydia to Trainers and Handlers through general exposure (airborne).	1	<ul style="list-style-type: none"> <li>Risk has been assessed by a panel including Wildlife Manager and RS Vet on 21 Sept 2011 as being a Nominal Risk – airborne spread.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Employ basic animal husbandry skills to identify animals which are sick to enable personal protective measures to be employed.</li> </ul>	
Free Flight Bird Show. Risk of infection to Trainers and Handlers through trauma (bird bites)	1	<ul style="list-style-type: none"> <li>Risk has been assessed by a panel including Wildlife Manager and RS Vet on 21 Sept 2011 as being Low</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Apply basic hygiene processes – first-aid measures or if deemed appropriate seek medical attention due to apparent inflammation etc.</li> </ul>	
Free Flight Bird Show Risk of bird landing on a member of public and scratching or biting them	42	<ul style="list-style-type: none"> <li>Bird Show staff to immediately focus on the individual, assess extent of injury, reassure them and apply basic first-aid measures.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Provide visitor with some background information on what risk they may have been exposed to and advise them to seek further medical assistance if any symptoms present within 48 hours.</li> </ul>	
Free Flight bird Show Risk of Bird defecating on visitor/s.	3	<ul style="list-style-type: none"> <li>Bird Show staff to immediately focus on the individual, assess extent of impact, provide cloths and disinfectant to remove the faeces, reassure them.</li> </ul>	Yes		
Personnel issues arising from employment procedures, training, discrimination, harassment.	3	<ul style="list-style-type: none"> <li>Induction and training programmes refinement</li> <li>Training to be put in place to up skill, coach and monitor</li> <li>Ongoing training managers in Human Resources and general management.</li> <li>Ongoing advice and support from HR manager.</li> </ul>	Yes	<ul style="list-style-type: none"> <li>Ensure HR Protocols are understood and employed by managers</li> <li>OCP available to staff</li> </ul>	