

# isa parasurfing



## **ISA Para Surfing Classification Sport Classes and Minimal Impairment Criteria**

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## Appendix One

### 1. Athletes with Physical Impairment

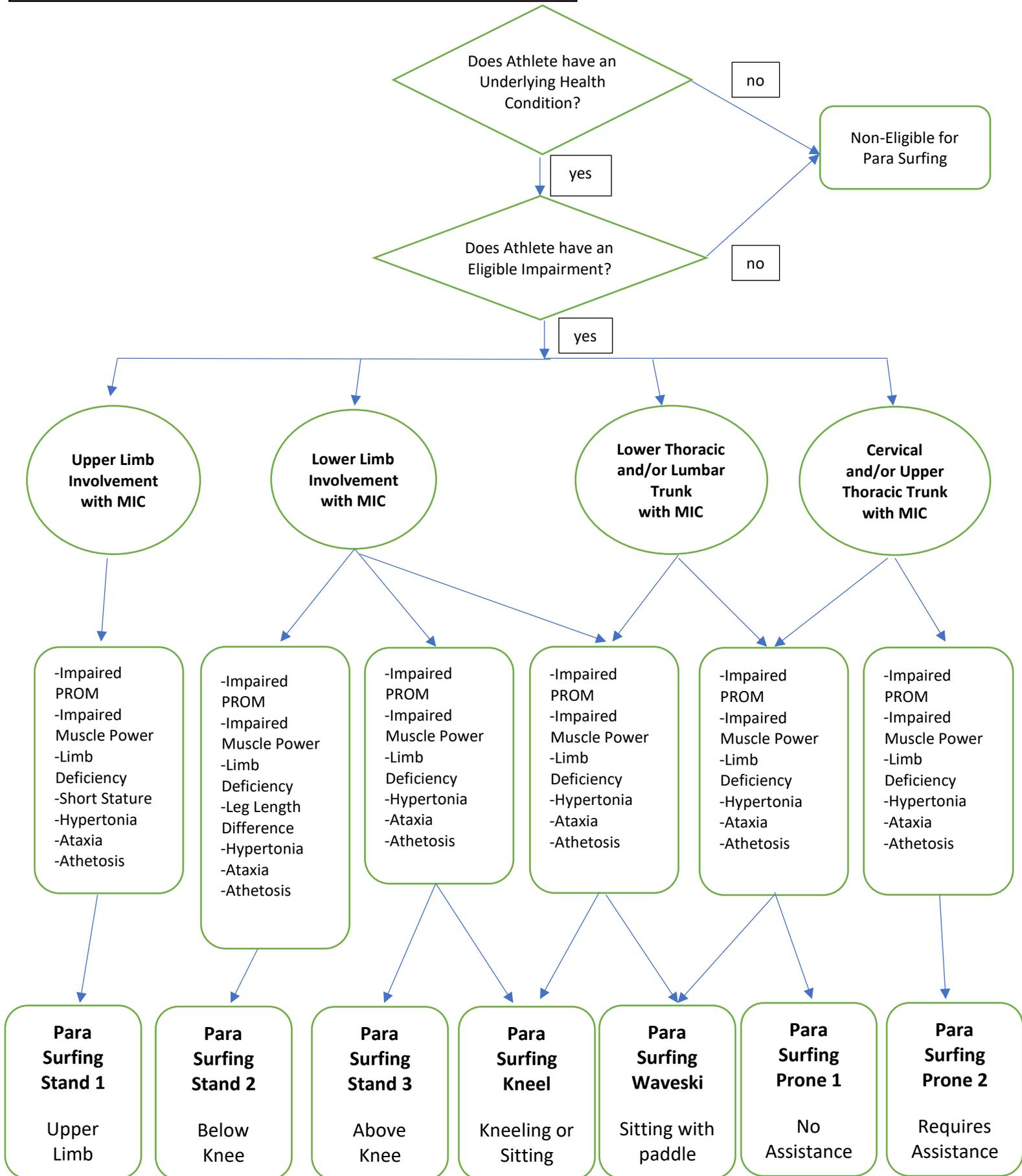
#### Introduction

This Appendix outlines the process by which an Athlete with a Physical Impairment(s) will be classified and allocated a Sport Class for Para Surfing. It is divided into three parts:

- **Section 1** – Eligible Impairment Types: describes the Eligible Impairment Types for Para Surfing and lists examples of Underlying Health Conditions that can give rise to Eligible Impairments.
- **Section 2** – Minimum Impairment Criteria (MIC) and Assessment Methodology: identifies how severe Eligible Impairment Types must be in order to be eligible for Para Surfing and describes the assessment techniques to be applied during Athlete Evaluation.
- **Section 3** – Sport Class Profiles: describes the Sport Classes for Para Surfing.

**Figure 1** Provides a general overview of the decision-making process that must be made by Classifiers when conducting Athlete Evaluation for Athletes with Physical Impairments.

**Figure 1: Decision-Making Process for Athlete Evaluation**



The three components of Athlete Evaluation for Athletes with a Physical Impairment are:

- Physical Assessment
- Technical Assessment; and
- (if required) Water Observation Assessment

Each Classification Panel must conduct a Physical Assessment and a Technical Assessment prior to assigning an Athlete with a Sport Class, unless a Classification Panel determines that a Sport Class and Sport Class Status may be assigned solely on the basis of a Physical Assessment for an Athlete with one or more of the following Impairments:

- Limb Deficiency
- Short Stature, and/or
- Leg Length Difference

A Classification Panel may require that an Athlete undertake a Water Observation Assessment before it allocates a final Sport Class and designates a Sport Class Status to that Athlete.

## **Step 1: Physical Assessment**

### **1. Impairment Tests**

The Physical Assessment must include impairment tests. These tests include, but are not limited to, passive range of motion goniometry, manual muscle testing, spasticity testing, reflex testing, and bone length measuring.

### **2. Novel Activities**

The Physical Assessment may include coordination tests of the upper limbs and lower limbs. These are activities that may reflect strength, range of motion, and coordination. The activities are unlikely to have been practiced by the Athlete in the usual course of training for surfing. Examples of such novel activities are foot tapping tasks, eye-hand coordination, and balance activities.

### **3. Practiced Activities**

The Physical Assessment may include practiced activities. These are activities that incorporate elements of strength, range of motion, and coordination. They are highly

likely to have been practiced by the Athlete in the course of training for surfing. For example, rapid alternation movements of the upper extremities and walking over sand.

#### **4. Assessment of Training History and Other Personal Factors**

The Physical Assessment may include the Classification Panel asking the Athlete questions to determine the frequency and duration of training, periodization of training, coaching, assistance in and out of the water. In addition, other factors such as Athlete age, gender, medical history and medications may also be considered by the Classification Panel in the allocation of Sport Class and Sport Class Status.

#### **Step 2: Technical Assessment**

The Technical Assessment refers to the sport specific assessment conducted prior to the Athlete taking part in their first event in the Competition (First Appearance). The aim is to replicate the activity that the Athlete will do in the Event(s) that the Athlete will compete in. Importantly, the Athlete is required to execute the activity with best effort. During the Technical Assessment, the Athlete must wear the same attire and use the same equipment (surfboard, prosthesis, orthosis) that the Athlete uses in Competition.

#### **Step 3: Water Observation in Competition Assessment**

Water Observation in Competition Assessment refers to the observation of an Athlete in a Competition by a Classification Panel. The Water Observation in Competition is only required if a Classification Panel considers it necessary in order to complete an Evaluation Session. Water Observation in Competition Assessment follows the principles of the Technical Assessment (as outlined above). It complements the Technical Assessment by providing the Classification Panel an opportunity to observe the Athlete in a competitive sport situation where he or she is more likely to be using their best effort in order to be competitive against other Athletes. When Water Observation in Competition Assessment reveals: inconsistencies with the Physical Assessment and/or the Technical Assessment; and /or, in sole discretion of the Classification Panel, that the Athlete may have not performed to his/her best ability, reassessment may take place before a Sport Class is allocated.

## Eligible Impairment Types

### 1.1 Eligible Impairment Types

The following eight (8) Physical Impairment types are eligible in Para Surfing (Table 1) under the following conditions:

- 1.1.1 an Athlete must be affected by at least one (1) of the Eligible Impairments listed in the first column of the table; and
- 1.1.2 the Eligible Impairment must result directly from a permanent Underlying Health Condition, examples of which are included in the second column.

**Table 1 – Eligible Impairment Types:** *In order to compete in Para Surfing, an Athlete must be affected by at least one (1) of the eight (8) Eligible Impairments listed in the first column of the below table.*

<b>Eligible Impairment</b>	<b>Examples of Underlying Health Conditions</b>
<p><b>Impaired Muscle Power</b></p> <p>Athletes with Impaired Muscle Power have a Health Condition that either reduces or eliminates their ability to voluntarily contract their muscles in order to move or to generate force.</p>	<p>Examples of an Underlying Health Condition that can lead to Impaired Muscle Power include spinal cord injury (complete or incomplete, tetra-or paraplegia or paraparesis), muscular dystrophy, post-polio syndrome and spina bifida.</p>
<p><b>Impaired Passive Range of Movement</b></p> <p>Athletes with Impaired Passive Range of Movement have a restriction or a lack of passive movement in one or more joints.</p>	<p>Examples of an Underlying Health Condition that can lead to Impaired Passive Range of Movement include arthrogyrosis and contracture resulting from chronic joint immobilization or trauma affecting a joint.</p>
<p><b>Limb Deficiency</b></p> <p>Athletes with Limb Deficiency have total or partial absence of bones or joints as a consequence of trauma.</p>	<p>Examples of an Underlying Health Condition that can lead to Limb Deficiency include: traumatic amputation, illness (for example amputation due to bone cancer) or congenital Limb Deficiency (for example dysmelia).</p>
<p><b>Leg Length Difference</b></p> <p>Athletes with Leg Length Difference have a difference in the length of their legs.</p>	<p>Examples of an Underlying Health Condition that can lead to Leg Length Difference include: dysmelia and congenital or traumatic disturbance of limb growth.</p>

<p><b>Short Statue</b></p> <p>Athletes with Short Stature have a reduced length in the bones of the upper limbs, lower limbs, and/or both.</p>	<p>Examples of an Underlying Health Condition that may lead to Short Stature included achondroplasia, growth hormone dysfunction, and osteogenesis imperfecta.</p>
<p><b>Hypertonia</b></p> <p>Athletes with hypertonia have an increase in muscle tension and a reduced ability of a muscle to stretch caused by damage to the central nervous system.</p>	<p>Examples of an Underlying Health Condition that can lead to Hypertonia include cerebral palsy, traumatic brain injury and stroke.</p>
<p><b>Ataxia</b></p> <p>Athletes with Ataxia have uncoordinated movements caused by damage to the central nervous system'</p>	<p>Examples of an Underlying Health Condition that can lead to Ataxia include cerebral palsy, traumatic brain injury, stroke and multiple sclerosis.</p>
<p><b>Athetosis</b></p> <p>Athletes with Athetosis have continual slow involuntary movements.</p>	<p>Examples of an Underlying Health Condition that can lead to Athetosis include cerebral palsy, traumatic brain injury and stroke.</p>

## 2 Methods of Assessment and Minimal Impairment Criteria

- 2.1 An Athlete must undertake Physical Assessments and Technical Assessments in order to be allocated a Sport Class. This is required in order to establish that the Athlete exhibits an Eligible Impairment that qualifies the Athlete for Competition, and that the Athlete exhibits activity limitations resulting from that Eligible Impairment that affect the **Athlete's** ability to compete. Both of these components are part of the overall eligibility assessment process that is an integral feature of Athlete Evaluation. The physical and technical assessments detailed in this section are complemented with water observation in training and/or Competition if required by the Classification Panel.
- 2.2 In order to complete the physical and technical assessment, a Classification Panel must have access to medical documentation regarding the **Athlete's** Impairment.
- 2.3 Athletes are required to attend an Evaluation Session with any prosthetics, braces, strapping, and supports.
- 2.4 **Minimal Impairment Criteria** (MIC) defines how severe an Athlete's Impairment must be in order to be eligible for ISA Para Surfing. ISA Para Surfing has nine (9) sets of MIC that is defined under each Physical Assessment.

### 2.5 Muscle Strength Testing (Oxford Scale)

Muscle strength must be measured with the Oxford Scale (Clarkson, 2013). The scores defining the Sport Class profiles make use of this scale from 0-5\*

Numbers and Letters		Description
<b>Against Gravity Tests</b>		<b>Athlete is Able to Actively Move Through:</b>
5	N (normal)	full available ROM against gravity and against maximal resistance
4	G (good)	full available ROM against gravity and against moderate resistance
3	F (fair)	full available ROM against gravity
<b>Gravity Eliminated Tests</b>		<b>Athlete is Able to Actively Move Through:</b>
2	P (poor)	full available ROM gravity eliminated
1	T (trace)	none of the available ROM gravity eliminated and there is a palpable or observable flicker of a muscle contraction
0	0 (zero)	none of the available ROM gravity eliminated and there is no palpable or observable muscle contraction

\*Plus (+) and Minus (-) will not be used due to subjectivity that lacks reliability.

2.5.1 **The Minimum Impairment Criteria is met if impairment is noted in the upper and/or lower extremity tests based on the Athlete’s Para Surfing Sport Class.**

**Para Surfing Stand 1** - ≤50/65 in 1 Upper Limb

**Para Surfing Stand 2** - ≤40/60 in 1 Lower Limb

**Para Surfing Stand 3** - ≤30/60 in 1 Lower Limb **OR** ≤80/120 in Both Lower Limbs

**Para Surfing Kneel** - ≤30/60 in 1 Lower Limb **OR** ≤80/120 in Both Lower Limbs

**Para Surfing Waveski** - ≤60/120 in Both Lower Limbs and ≤7/10 in Trunk

**Para Surfing Prone 1** - ≤60/120 in Both Lower Limbs and ≤7/10 in Trunk

**Para Surfing Prone 2** ≤120/130 in Both Upper Limbs **AND** ≤60/120 in Both Lower Limbs **AND** ≤5/10 in Trunk

## 2.6 Passive Range of Movement (PROM) Testing

Joint passive range of movement testing must be measured using the protocols described by Clarkson (Clarkson, 2015). In brief, measurement of PROM requires the Athlete to relax completely and not attempt voluntary movement while the classifier moves the testing joint through the available passive range (Clarkson, 2015).

2.6.1 The following PROM scale will be used for joint range of movement:

UE Movement	Degree of Motion		LE Movement	Degree of Motion
Shoulder Flexion	0-180		Hip Flexion	0-120
Shoulder Extension	0-60		Hip Extension	0-20
Shoulder Abduction	0-180		Hip Abduction	0-45
Shoulder Internal Rotation	0-70		Hip Adduction	0-30
Shoulder External Rotation	0-90		Hip Internal Rotation	0-45
Shoulder Horizontal Abduction	0-45		Hip External Rotation	0-45
Shoulder Horizontal Adduction	0-135		Knee Flexion	0-135
Elbow Flexion	0-150		Knee Extension	135-0
Elbow Extension	150-0		Plantar Flexion	0-50
Forearm Supination	0-80		Dorsi Flexion	0-20
Forearm Pronation	0-80		Inversion	0-35
Wrist Flexion	0-80		Eversion	0-15
Wrist Extension	0-70			
Radial Deviation	0-20			
Ulnar Deviation	0-30			

## 2.6.2 The Minimum Impairment Criteria is met if impairment is noted in the upper and/or lower extremity tests based on the Para Surfing Sport Class.

**Para Surfing Stand 1** -  $\geq 1/3$  ROM in 1 Upper Limb =  $\geq 5/15$  UE joint motions in the 33% impairment range

**Para Surfing Stand 2** -  $\geq 1/3$  ROM in 1 Lower Limb =  $\geq 4/12$  LE joint motions in the 33% impairment range **AND**  $\geq 2$  joints must be in the ankle in the 33% impairment range

**Para Surfing Stand 3** -  $\geq 1/2$  in 1 LE =  $\geq 6/12$  LE joint motions in the 33% impairment range **OR**  $\geq 1/3$  in BLE's =  $\geq 8/24$  LE joint motions in the 33% impairment range **AND**  $\geq 4$  joints must be in the ankle in the 33% impairment range

**Para Surfing Kneel** -  $\geq 1/2$  in 1 LE =  $\geq 6/12$  LE joint motions in the 33% impairment range **OR**  $\geq 1/3$  in BLE's =  $\geq 8/24$  LE joint motions in the 33% impairment range **AND**  $\geq 4$  joints must be in the ankle in the 33% impairment range

**Para Surfing Waveski** -  $\geq 1/2$  ROM in Both Lower Limbs in the 33% impairment range

**Para Surfing Prone 1** -  $\geq 1/2$  ROM in Both Lower Limbs in the 33% impairment range

**Para Surfing Prone 2** -  $\geq 1/2$  ROM in Both Upper Limbs in the 33% impairment range **AND**  $\geq 1/2$  ROM in Both Lower Limbs in the 33% impairment range

## 2.7 Limb Deficiency

Limb deficiency refers to amputations resulting from trauma or surgeries or dysmelia (congenital limb deficiency from birth) or brachial or lumbosacral plexus injuries. Residual limbs and sound limbs are measured and compared to each other:

2.7.1 For the upper extremity **above elbow** amputations or congenital equivalents:  
Measure sound limb are tip of acromion to tip of thumb. Measure residual limb from tip of the acromion to distal end of limb.

2.7.2 For the upper extremity **below elbow** amputations or congenital equivalents:  
Measure sound limb are tip of acromion to tip of thumb. Measure residual limb from tip of the acromion to lateral epicondyle. Then medial epicondyle to distal end of limb.

2.7.3 For the lower extremity **above the knee** amputations or congenital equivalents:  
Measure sound limb from greater trochanter to floor for total measurement. Then first measure greater trochanter to medial tibia plateau and then horizontally cross over laterally. Then second, measure medial tibia plateau to medial malleolus. Measure residual limb from greater trochanter to distal end of limb.

2.7.4 For the lower extremity **below the knee** amputations or congenital equivalents: Measure sound limb from greater trochanter to floor for total measurement. Then first measure greater trochanter to medial tibia plateau and then horizontally cross over laterally. Then second, measure medial tibia plateau to medial malleolus. Measure residual limb from greater trochanter to medial tibia plateau and then horizontally cross over laterally. Then measure medial tibial plateau to distal end of limb.

2.7.5 **The Minimum Impairment Criteria is met if impairment is noted in the upper and/or lower extremity tests based on the Para Surfing Sport Class.**

**Para Surfing Stand 1** – Upper limb amputation or congenital or impairment equivalent through wrist without articulating wrist.

**Para Surfing Stand 2** – 1 lower limb Below Knee Amputation or congenital or impairment equivalent through ankle without articulating ankle.

**Para Surfing Stand 3** - 1 lower limb above knee amputation or congenital or impairment equivalent through knee without articulating knee **OR** both lower limbs below knee amputation or congenital or impairment equivalent through ankle without articulating ankle.

**Para Surfing Kneel** - 1 lower limb above knee amputation or congenital or impairment equivalent through knee without articulating knee **OR** both lower limb below knee amputation or congenital or impairment equivalent through ankle without articulating ankle.

**Para Surfing Waveski** - Bilateral lower limb above knee amputations or congenital or impairment equivalent through knees without articulating joints.

**Para Surfing Prone 1** - Bilateral lower limb above knee amputations or congenital or impairment equivalent through knees without articulating joints.

**Para Surfing Prone 2** – One upper limb amputation or congenital or impairment equivalent through wrist without articulating wrist **AND** Both lower limb above knee amputations or congenital or impairment equivalent through knees without articulating knees **OR** both lower limbs below knee amputations or congenital or impairment equivalent through ankle without articulating ankle joints.

## 2.8 Leg Length Difference

2.8.1 To measure, the Athlete must lie supine with legs relaxed and fully extended. Measure from the inferior aspect of the anterior superior iliac spine to the inferior aspect of the tip of the medial malleolus on each leg and then compare. The difference in length between right and left legs must be 7cm or more to meet eligibility.

2.8.2 Another method of measurement: The Athlete is standing barefoot on a level ground. Using a pelvis level, test the level of the pelvis on the superior aspect of the iliac crest. Then the shorter limb steps on the 7cm block and the pelvis is measured again. With the pelvic measure and 7 cm block, the pelvis should be leveled or angled the opposite way if the difference is more than 7cm.

2.8.3 **The Minimum Impairment Criteria is met if the Athlete levels at 7cm or greater in difference between BLE's or with the pelvic leveler and block. Athlete only fits into Para Surfing Stand 2 Sport Class.**

## 2.9 Short Stature

Short stature athletes will be subject to annual review until the age of 18 years old. Males and females with short stature have different minimum impairment criteria. Athlete's position is looking straight ahead, back up against a post or wall, and standing barefoot on level ground. Height is measured from top of head to heels on ground.

### 2.9.1 Males with short stature

Maximum standing height permitted is 145cm standing barefoot on a level ground

### 2.9.2 Females with short stature

Maximum standing height permitted is 137cm standing barefoot on a level ground

2.9.3 **The Minimum Impairment Criteria is met if males measure at or below 145cm and females measure at or below 137cm in height. Athlete only fits into Para Surfing Stand 1 Sport Class.**

## 2.10 Hypertonia

Hypertonia is defined as increased tone which is caused by central nervous system damage which results in increased resistance to passive lengthening of the muscle. One of the following types of hypertonia must be clearly detectable at the shoulder, elbow, wrist, hip, knee, or ankle: spastic hypertonia, rigidity, or dystonia.

Spasticity must be measured with the Modified Ashworth Scale (derived from Bohannon and Smith, 1987). The scores defining the Sport Class profiles make use of this scale.

### 2.10.1 Spasticity Grading (Modified Ashworth Scale)

- 0 No increase in muscle tone.
- 1 Slight increase in muscle tone, manifested by a catch and release or by minimal resistance at the end range of motion when the affected part is moved in flexion or extension.
- 1+ Slight increase in muscle tone, manifested by a catch, followed by minimal resistance throughout the remainder (less than half) of the ROM.

- 2 More marked increase in muscle tone through most of the ROM but affected part(s) easily moved.
- 3 Considerable increase in tone, passive movement difficult.
- 4 Affected part(s) rigid in flexion or extension

2.10.2 In conducting the assessment, the Classification Panel must be satisfied that the resistance to passive lengthening of the muscle is related to an underlying Impairment. The following neurological signs and reflex testing may be useful indicators in this regard:

- **Babinski's sign**- positive Babinski response on the side in which the tone is increased.
- **Hyper reflexia**- abnormal brisk reflexes in the upper and lower limb in which the tone is increased; mild atrophy in the limb in which the tone is increased.
- **Clonus**- presence of non-dampening clonus on the side which the tone is increased.

2.10.3 **The Minimum Impairment Criteria is met if the Athlete tests  $\geq 2/4$  on the Modified Ashworth and presents with  $2/3$  of the neurological signs and reflexes. In addition, Impaired Functional Testing must be present based on the Para Surfing Sport Class:**

**Para Surfing Stand 1** - 4/5 impaired in UE Functional Tests

**Para Surfing Stand 2** – 5/10 impaired in LE Functional Tests

**Para Surfing Stand 3** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Kneel** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Waveski** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Prone 1** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Prone 2** – 5/5 impaired UE Functional Tests **AND** 10/10 impaired 1 LE Functional tests **OR** 20/20 impaired BLE's Functional Tests

## 2.11 Ataxia

Ataxia refers to unsteadiness, incoordination or clumsiness of volitional movement (Krishna et al., 2019). Eligible ataxia must result from either motor or sensory nervous system dysfunction. Motor ataxias most frequently result from malformation or damage to the cerebellum and often associated with hypertonia (Krishna et al., 2019). Motor ataxias are poorly compensated for by visual input. Sensory ataxia most frequently results from lower motor neuron damage or spinal cord disease, affecting vestibular function or

proprioceptive function. Visual input can help compensate for sensory ataxia and so sensory ataxia are often more evident when eyes are closed.

2.11.1 When conducting the assessments, the Classification Panel must be satisfied that ataxic movements are demonstrable and clearly evident during the classification and that the observed ataxia is due to motor or sensory nervous system dysfunction as described. Tests that may be useful for determining this include but are not limited to the Functional Test Battery (see 2.13.1 for the Upper Extremity Functional Tests and 2.13.2 for the Lower Extremity Functional Tests).

**2.11.2 The Minimum Impairment Criteria is met if Ataxic Movement is observed and impairment is noted on the Upper Extremity Functional Tests and/or the Lower Extremity Functional Tests based on the Para Surfing Sport Class:**

**Para Surfing Stand 1** - 4/5 impaired in UE Functional Tests

**Para Surfing Stand 2** – 5/10 impaired in LE Functional Tests

**Para Surfing Stand 3** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Kneel** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Waveski** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Prone 1** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Prone 2** – 5/5 impaired UE Functional Tests **AND** 10/10 impaired 1 LE Functional tests **OR** 20/20 impaired BLE's Functional Tests

## Reference:

Krishna, R., Pathirana, P. N., Horne, M., Power, L., & Szmulewicz, D. J. (2019). Quantitative assessment of cerebellar ataxia, through automated limb functional tests. *Journal of neuroengineering and rehabilitation*, 16(1), 31.

## 2.12 Athetosis

Athetosis refers to unwanted movement and posturing resulting from damage to motor control centers of the brain, most frequently the basal ganglia. When conducting the assessment, the Classification Panel must be satisfied that athetotic movements are clearly evident, neurological in origin, and related to an underlying Impairment. Tests and observations that may be useful for determining clearly evident athetosis include, but are not limited to the following:

- involuntary movement of the fingers or upper extremities despite the Athlete trying to remain still;
- involuntary movement of the toes or lower extremities despite the Athlete trying to remain still;

- inability to hold the body still swaying of the body. Swaying must not be due to other neurological deficits such as vestibular or proprioceptive Impairments and therefore must not be exacerbated by closing the eyes during the test;
- characteristic athetoid posturing of the limbs and/or trunk.

**2.12.1 The Minimum Impairment Criteria is met if the Athlete is observed to have at least one of the four characterized movements and impairment is noted on the Upper Extremity Functional Tests and/or the Lower Extremity Functional Tests based on the Para Surfing Sport Class:**

**Para Surfing Stand 1** - 4/5 impaired in UE Functional Tests

**Para Surfing Stand 2** – 5/10 impaired in LE Functional Tests

**Para Surfing Stand 3** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Kneel** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Waveski** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Prone 1** – 8/10 impaired in 1 LE **OR** 10/20 in BLE's Functional Tests

**Para Surfing Prone 2** – 5/5 impaired UE Functional Tests **AND** 10/10 impaired 1 LE Functional tests **OR** 20/20 impaired BLE's Functional Tests

The Athlete will not be eligible if athetoid movements of the face are the sole Impairment.

## **2.13 Functional Testing Battery for Neurological Impairments**

The Functional Testing Battery will be used for all three neurological impairments: Hypertonia, Ataxia, and Athetosis. Additional tests may be used if necessary.

### 3 Assessment Criteria for the Allocation of a Sport Class and the Designation of Sport Class Status

Final Sport Class allocation is a result of a combination of several measurements and assessments.

Sport Classes are designated by standing, kneeling and prone positions with minimal impairment criteria listed for each.

**Abbreviations:** UE= Upper Extremity; LE=Lower Extremity; MAS=Modified Ashworth Scale; MMT=Manual Muscle Testing (Oxford Scales)

<b>Surf Class</b>	<b>Para Surfing Stand 1 Upper Limb and Short Stature</b>
<b>Description</b>	Any surfer who rides a wave in a standing position with an <b>upper limb</b> amputation or congenital or impairment equivalent or short stature.
<b>Eligible Impairments</b>	<b>Minimal Impairment Criteria</b>
<b>Impaired Passive Range of Motion</b>	≥1/3 in 1 UE (≥5/15 UE joint motions in the 33% impairment range)
<b>Impaired Muscle Power</b>	≤50/65 MMT score 1 UE
<b>Limb Deficiency</b>	UE amputation ∅ wrist or congenital equivalent
<b>Leg Length Difference</b>	X
<b>Short Stature</b>	≤ 145 cm males ≤ 137 cm females
<b>Neurological Evidence: Hypertonia, Ataxia, and Athetosis</b>	
<b>Hypertonia</b>	≥ 2/4 MAS <b>AND</b> + Clonus <b>OR</b> + Hyperreflexia <b>AND</b> 4/5 Impaired UE Functional Tests
<b>Ataxia</b>	4/5 Impaired UE Functional Tests <b>AND</b> ataxic movements observed
<b>Athetosis</b>	4/5 Impaired UE Functional Tests <b>AND</b> ≥1/4 athetoid movements observed

<b>Surf Class</b>	<b>Para Surfing Stand 2</b> Below Knee
<b>Description</b>	Any surfer who rides a wave in a standing position with a <b>below the knee</b> amputation or congenital or impairment equivalent, or leg length difference.
<b>Eligible Impairments</b>	<b>Minimal Impairment Criteria</b>
<b>Impaired Passive Range of Motion</b>	$\geq 1/3$ in 1 LE ( $\geq 4/12$ LE joint motions in the 33% impairment range <b>AND</b> $\geq 2$ joints must be in the ankle in the 33% impairment range)
<b>Impaired Muscle Power</b>	$\leq 40/60$ MMT score 1 LE
<b>Limb Deficiency</b>	Below knee amputation $\emptyset$ ankle or congenital equivalent
<b>Leg Length Difference</b>	$\geq 7$ cm
<b>Short Stature</b>	X
<b>Neurological Evidence: Hypertonia, Ataxia, and Athetosis</b>	
<b>Hypertonia</b>	$\geq 2/4$ MAS <b>AND</b> + Clonus <b>OR</b> + Hyperreflexia <b>AND</b> $5/10$ Impaired LE Functional Tests
<b>Ataxia</b>	$5/10$ Impaired LE Functional Tests <b>AND</b> ataxic movements observed
<b>Athetosis</b>	$5/10$ Impaired LE Functional Tests <b>AND</b> $\geq 1/4$ movement disorders observed

Surf Class	<b>Para Surfing Stand 3</b> Above Knee
<b>Description</b>	Any surfer who rides a wave in a standing position with an <b>above the knee</b> amputation or <b>both</b> lower extremity amputations or congenital or impairment equivalent.
<b>Eligible Impairments</b>	<b>Minimal Impairment Criteria</b>
<b>Impaired Passive Range of Motion</b>	≥1/2 in 1 LE (≥6/12 LE joint motions in the 33% impairment range) <b>OR</b> ≥1/3 in Both LE's (≥8/24 LE joint motions in the 33% impairment range) <b>AND</b> ≥4 joints must be in the ankle in the 33% impairment range
<b>Impaired Muscle Power</b>	≤ 30/60 MMT score in 1 LE <b>OR</b> ≤ 80/120 MMT score in Both LE's
<b>Limb Deficiency</b>	Above knee amputation ∅ knee or congenital equivalent <b>OR</b> Bilateral below knee amputation ∅ ankles or congenital equivalent
<b>Leg Length Difference</b>	X
<b>Short Stature</b>	X
<b>Neurological Evidence: Hypertonia, Ataxia, and Athetosis</b>	
<b>Hypertonia</b>	≥ 2/4 MAS <b>AND</b> + Clonus <b>OR</b> + Hyperreflexia <b>AND</b> 8/10 Impaired LE Functional Tests <b>OR</b> 10/20 Impaired Both LE Functional Tests
<b>Ataxia</b>	8/10 Impaired LE Functional Tests <b>OR</b> 10/20 Impaired Both LE Functional Tests <b>AND</b> ataxic movements observed
<b>Athetosis</b>	8/10 Impaired LE Functional Tests <b>OR</b> 10/20 Impaired Both LE Functional Tests <b>AND</b> ≥1/4 movement disorders observed

<b>Surf Class</b>	<b>Para Surfing Kneel and Sitting Without a Paddle</b>
<b>Description</b>	Any surfer who rides a wave in a kneeling or sitting without paddle position with an <b>above the knee</b> amputation or both lower limb amputations or congenital or impairment equivalent.
<b>Eligible Impairments</b>	<b>Minimal Impairment Criteria</b>
<b>Impaired Passive Range of Motion</b>	$\geq 1/2$ in 1 LE ( $\geq 6/12$ LE joint motions in the 33% impairment range) <b>OR</b> $\geq 1/3$ in Both LE's ( $\geq 8/24$ LE joint motions in the 33% impairment range) <b>AND</b> $\geq 4$ joints must be in ankle in the 33% impairment range
<b>Impaired Muscle Power</b>	$\leq 30/60$ MMT score in 1 LE <b>OR</b> $\leq 80/120$ MMT score in BLE's
<b>Limb Deficiency</b>	Above knee amputation $\emptyset$ knee or congenital equivalent <b>OR</b> Bilateral below knee amputation $\emptyset$ ankles or congenital equivalent
<b>Leg Length Difference</b>	X
<b>Short Stature</b>	X
<b>Neurological Evidence: Hypertonia, Ataxia, and Athetosis</b>	
<b>Hypertonia</b>	$\geq 2/4$ MAS <b>AND</b> + Clonus <b>OR</b> + Hyperreflexia <b>AND</b> $8/10$ Impaired LE Functional Tests <b>OR</b> $10/20$ Impaired Both LE Functional Tests
<b>Ataxia</b>	$8/10$ Impaired 1 LE Functional Tests <b>OR</b> $10/20$ Impaired Both LE Functional Tests <b>AND</b> with ataxic movements observed
<b>Athetosis</b>	$8/10$ Impaired LE Functional Tests <b>OR</b> $10/20$ Impaired Both LE Functional Tests <b>AND</b> $\geq 1/4$ movement disorders observed

Surf Class	Para Surfing Waveski
<b>Description</b>	Any surfer who rides the wave in a seated position and uses a paddle that does <b>NOT</b> require assistance paddling into a wave and getting back on the board safely.
<b>Eligible Impairments</b>	Minimal Impairment Criteria
<b>Impaired Passive Range of Motion</b>	≥1/2 in Both LE's (≥12/24 LE joint motions in the 33% impairment range)
<b>Impaired Muscle Power</b>	≤ 60/120 MMT score in Both LE's <b>AND</b> ≤7/10 MMT score in Trunk
<b>Limb Deficiency</b>	Bilateral above knee amputations ∅ knees or Bilateral BKA ∅ ankles or combo of 1 AKA and 1 BKA or congenital equivalent
<b>Leg Length Difference</b>	X
<b>Short Stature</b>	X
<b>Neurological Evidence: Hypertonia, Ataxia, and Athetosis</b>	
<b>Hypertonia</b>	≥ 2/4 MAS <b>AND</b> + Clonus <b>OR</b> + Hyperreflexia <b>AND</b> 8/10 Impaired LE Functional Tests <b>OR</b> 10/20 Impaired Both LE Functional Tests
<b>Ataxia</b>	8/10 Impaired 1 LE Functional Tests <b>OR</b> 10/20 Impaired Both LE Functional Tests <b>AND</b> with ataxic movements observed
<b>Athetosis</b>	8/10 Impaired 1 LE Functional Tests <b>OR</b> 10/20 Impaired BLE Functional Tests <b>AND</b> ≥1/4 movement disorders observed

Surf Class	Para Surfing Prone 1
<b>Description</b>	Any surfer who rides the wave in a <b>prone</b> position that does <b>NOT</b> require assistance paddling into a wave and getting back on the board safely.
<b>Eligible Impairments</b>	Minimal Impairment Criteria
<b>Impaired Passive Range of Motion</b>	≥1/2 in Both LE's (≥12/24 LE joint motions in the 33% impairment range)
<b>Impaired Muscle Power</b>	≤ 60/120 MMT score in Both LE's <b>AND</b> ≤7/10 MMT score in Trunk
<b>Limb Deficiency</b>	Bilateral above knee amputations ∅ knees or Bilateral BKA ∅ ankles or combo of 1 AKA and 1 BKA or congenital equivalent
<b>Leg Length Difference</b>	X
<b>Short Stature</b>	X
<b>Neurological Evidence: Hypertonia, Ataxia, and Athetosis</b>	
<b>Hypertonia</b>	≥ 2/4 MAS <b>AND</b> + Clonus <b>OR</b> + Hyperreflexia <b>AND</b> 8/10 Impaired LE Functional Tests <b>OR</b> 10/20 Impaired Both LE Functional Tests
<b>Ataxia</b>	8/10 Impaired 1 LE Functional Tests <b>OR</b> 10/20 Impaired Both LE Functional Tests <b>AND</b> with ataxic movements observed
<b>Athetosis</b>	8/10 Impaired 1 LE Functional Tests <b>OR</b> 10/20 Impaired BLE Functional Tests <b>AND</b> ≥1/4 movement disorders observed

Surf Class	Para Surfing Prone 2
<b>Description</b>	Any surfer who rides the wave in a <b>prone</b> position that <b>DOES</b> require assistance in the water, paddling into a wave, and getting back on the board safely.
<b>Eligible Impairments</b>	<b>Minimal Impairment Criteria</b>
<b>Impaired Passive Range of Motion</b>	$\geq 1/2$ in Both UE's ( $\geq 15/30$ BUE's joint motions in the 33% impairment range) <b>AND</b> $\geq 1/2$ in Both LE's ( $\geq 12/24$ BLE joint motions in the 33% impairment range)
<b>Impaired Muscle Power</b>	$\leq 120/130$ MMT score Both UE's <b>AND</b> $\leq 60/120$ MMT score Both LE's <b>AND</b> $\leq 5/10$ MMT score in Trunk
<b>Limb Deficiency</b>	1 UE amputation or congenital or equivalent <b>AND</b> Bilateral above knee amputations $\emptyset$ knees or congenital or equivalent <b>OR</b> Bilateral below knee amputations $\emptyset$ ankles or congenital or equivalent
<b>Leg Length Difference</b>	X
<b>Short Stature</b>	X
<b>Neurological Evidence: Hypertonia, Ataxia, and Athetosis</b>	
<b>Hypertonia</b>	$\geq 2/4$ MAS <b>AND</b> + Clonus <b>OR</b> + Hyperreflexia <b>AND</b> 5/5 Impaired UE Functional Tests <b>AND</b> 10/10 Impaired LE Functional Tests <b>OR</b> 20/20 Impaired Both LE Functional Tests
<b>Ataxia</b>	5/5 Impaired UE Functional Tests <b>AND</b> 10/10 Impaired 1 LE Functional Tests <b>OR</b> 20/20 Impaired BLE Functional Tests <b>AND</b> ataxic movements observed
<b>Athetosis</b>	5/5 Impaired UE tests with $\geq 1/4$ movement disorders <b>AND</b> 10/10 Impaired 1 LE tests <b>OR</b> 20/20 Impaired Both LE tests <b>AND</b> $\geq 1/4$ movement disorders observed

## Appendix Two

### Athletes with Vision Impairment

#### 1 Eligible Impairment Types

Eligible Impairment	Examples of Health Conditions
<p>Vision Impairment</p> <p>Athletes with Vision Impairment have reduced or no vision caused by damage to the eye structure, optical nerves or optical pathways, or visual cortex of the brain.</p>	<p>Examples of an Underlying Health Condition that can lead to Vision Impairment include retinitis pigmentosa and diabetic retinopathy.</p>

#### 2 Minimum Impairment Criteria

Minimum Impairment Criteria for Athletes with a Vision Impairment have been set based on the Athlete's corrected vision. (The difference in approach for Athletes with Vision Impairment must be seen within the historical context of Classification for these Athletes, which is an assessment with 'best correction' as used in the context of medical diagnostics for visual acuity.)

2.1 To be eligible to compete in Sport Classes VI -1 and VI-2 in ISA Para Surfing, the Athlete must meet both of the criteria below:

2.1.1 The Athlete must have at least one of the following Impairments:

- Impairment of the eye structure;
- Impairment of the optical nerve/optic pathways;
- Impairment of the visual cortex.

2.1.2 The Athlete's Vision Impairment must result in a visual acuity of less than or equal to LogMAR 1.0 or a visual field restricted to less than 40 degrees diameter.

2.2 It is the responsibility of the Athlete and NPC to provide sufficient evidence of the Athlete's Vision Impairment. This must be done by way of submitting medical diagnostic information completed by an ophthalmologist as described in Article 7.5 of these Rules.

2.3 The medical diagnostic information must comprise the completed Medical Diagnostics Form (available on the ISA Para Surfing website) and

additional medical documentation as indicated on the Medical Diagnostics Form. Failure to present with complete medical diagnostic information may lead to Athlete Evaluation being suspended in accordance with Article 10 of these Rules.

- 2.4 Medical Diagnostic Information must be typewritten and submitted in English and may not be older than 12 months prior to the date of Evaluation Session.

## **3 Assessment Methodology**

- 3.1 All Athlete Evaluation and Sport Class allocation must be based on the assessment of visual acuity in the eye with better visual acuity when wearing the best optical correction.
- 3.2 Depending on an Athlete's visual acuity, visual acuity is tested using the LogMAR chart for distance visual acuity testing with literate "E" and/or the Berkeley Rudimentary Vision Test.
- 3.3 Athletes who compete using any corrective devices (e.g. glasses, lenses) must attend classification with these devices and their prescription.
- 3.4 An Athlete found to be using corrective devices during Competition that were not declared during Evaluation Session may be subject to further investigation of Intentional Misrepresentation (see Article 32).
- 3.5 Athletes must declare any change in their optical correction to ISA Para Surfing before any Competition. If the Athlete has a Sport Class Status Review with Fixed Review Date or Confirmed, the Athlete's Sport Class Status will be changed to Review. The Athlete will then undergo Athlete Evaluation prior to the next Competition under the provisions of these Rules. Failure to do so may result in an investigation of Intentional Misrepresentation (see Article 32).
- 3.6 Any Athlete Support Personnel accompanying the Athlete during the Evaluation Session must remain out of sight of the visual acuity charts during assessment.
- 3.7 Under the current provisions set out in this Appendix, Observation in Competition does not apply to Athletes with Vision Impairment.
- 3.8 ISA Para Surfing will inform the local organizing committee of the equipment and room requirements for the assessment of Athletes with Vision Impairment after the Classification Panels have been appointed. It is the local organizing committee responsibility to provide all equipment required by ISA Para Surfing.
- 3.9 Failure to provide all equipment required by ISA Para Surfing may result in the classification decisions not being accepted by ISA Para Surfing.

#### **4 Assessment Criteria for the Allocation of a Sport Class and the Designation of Sport Class Status**

For Para Surfing Vision, due to sun and water glare and no use of glasses or goggles, this sport will use Para Surfing Visual Impairment 1 (VI 1) Blind No Vision and Para Surfing Visual Impairment 2 (VI 2) Blind Low Vision. Para Surfing VI 2 Blind Low Vision will use the following minimal requirements as outlined in 4.2 and 4.3 Sport Class Visual Impairments.

##### **4.1 Sport Class Para Surfing Visual Impairment 1 (VI 1) Blind, No Vision**

4.1.1 Visual acuity is poorer than LogMAR 2.60.

##### **4.2 Sport Class Para Surfing Visual Impairment 2 (VI 2) Blind, Low (Partial) Vision**

4.2.1 Visual acuity ranges from LogMAR 1.50 to 2.60 (inclusive), and/or

4.2.2 the visual field is constricted to a radius of less than 10 degrees diameter.

##### **4.3 Sport Class Para Surfing Visual Impairment 2 (VI 2) Blind, Low (Partial) Vision**

4.3.1 Visual acuity ranges from LogMAR 1.40 to 1 (inclusive), and/or

4.3.2 the visual field is constricted to a radius of less than 40 degrees diameter.

## Appendix Three

### Athletes with Intellectual Impairment

At this time, the Eligible Impairment: Intellectual Impairment, will not be utilized for ISA Para Surfing.

#### 1 Eligible Impairment Types

Eligible Impairment
Intellectual Impairment Athletes with an Intellectual Impairment have a restriction in intellectual functioning and adaptive behavior in which affects conceptual, social and practical adaptive skills required for everyday life. This Impairment must be present before the age of 18.

#### 2 Minimum Impairment Criteria

Not Applicable

#### 3 Assessment Methodology

Not Applicable

#### 4 Assessment Criteria for the Allocation of a Sport Class and the Designation of Sport Class Status

Not Applicable

## Appendix Four

### 1 Non-Eligible Impairment Types for all Athletes

Examples of Non-Eligible Impairments include, but are not limited to the following:

- Pain;
- Hearing Impairment;
- Low muscle tone;
- Hypermobility of joints;
- Joint instability, such as unstable shoulder joint, recurrent dislocation of a joint;
- Impaired muscle endurance;
- Impaired motor reflex functions;
- Impaired cardiovascular functions;
- Impaired respiratory functions;
- Impairment metabolic functions;
- Tics and mannerisms, stereotypes and motor perseveration; and
- Intellectual Impairment.

### 2 Health Conditions that are not Underlying Health Conditions for all Athletes

A number of Health Conditions do not lead to an Eligible Impairment and are not Underlying Health Conditions. An Athlete who has a Health Condition (including, but not limited to, one of the Health Conditions listed in the above Appendix One and Appendix Two) but who does not have an Underlying Health Condition will not be eligible to compete in Para sport.

Health Conditions that primarily cause pain; primarily cause fatigue; primarily cause joint hypermobility or hypotonia; or are primarily psychological or psychosomatic in nature do *not* lead to an Eligible Impairment.

Examples of Health Conditions that primarily cause pain include myofascial *pain-dysfunction* syndrome, fibromyalgia or complex regional pain syndrome.

An example of a Health Condition that primarily causes fatigue is chronic fatigue syndrome.

An example of a Health Condition that primarily causes hypermobility or hypotonia is Ehlers Danlos syndrome.

Examples of Health Conditions that are primarily psychological or psychosomatic in nature include conversion disorders or post-traumatic stress disorder.