



## High Performance Orienteering for New Zealand

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## 1. BACKGROUND

It has become very clear over the last few years that orienteering in New Zealand is badly in need of a structured High Performance (HP) plan. There has been a growing sense among the top athletes that they have been disenfranchised from Orienteering New Zealand and they have contributed significantly in terms of their own time and financial resources without the benefit of any support structure. At the same time New Zealand orienteering has performed remarkably well on the world stage. Gold (twice) and bronze medals at the Junior World Championships (JWOC) as well as 3 other podium places in the last 5 years, in addition to several top 10 or top 20 places in WOC and World Cup (WC) races illustrate that there is significant orienteering talent in New Zealand. There has also continued to be regular success at school level in both the Australian Schools Championships and ANZ School Test Matches.

The present challenge is to put in place a structure which will not only enhance success at the top international level of WOC, but also provide a development path so that junior orienteers can progress to success at JWOC, and successes at JWOC can be translated into success at WOC/WC. To have any chance of being successful such a structure has to be both supported by the athletes and have wide support from the New Zealand orienteering community so that it remains stable with time and, indeed, becomes part of the fabric of New Zealand orienteering.

There are significant challenges to be overcome in developing any such structure. These are largely centred on the two issues of coaching and finance. In terms of coaching New Zealand orienteering not only has few qualified coaches with the necessary experience, but is also entirely dependent on volunteer time. This, as in all sports, is limited and in general shrinking. Any HP structure must identify ways in which these limitations can be overcome. Financial resources within New Zealand orienteering are also limited, yet our top athletes inevitably have to travel to Europe for most major competitions. New Zealand orienteering will only have success on the international stage if ways can be found that enable our top athletes to compete regular in the major events.

After first outlining what are believed to be a suitable set of goals for HP orienteering in New Zealand over the 5 year period 2015-2019, and an event hierarchy which is appropriate to New Zealand orienteers, the following sections outline those issues which are pertinent to achieving the proposed goals: (1) a squad structure for HP orienteering in New Zealand, (2) the structure of the New Zealand event programme, (3) ensuring a developmental pathway through the provision of suitable coaching and training

opportunities, and (4) funding for HP. The document concludes with a series of recommendations for a new HP structure in New Zealand orienteering.

## 2. GOALS FOR HIGH PERFORMANCE ORIENTEERING IN NEW ZEALAND 2015-19

The pinnacle of world orienteering is the senior World Championships and the public perception of the sport will always be related to how New Zealand performs on this stage. Although World Cup races are of an equally high level, and participation can provide long term benefits for athletes in terms of experience, the reality is that the distribution of these in space and time means New Zealanders generally cannot compete over a whole World Cup series. The first 3 proposed goals relate therefore to WOC. The overall team goal has also to be considered in terms of the changes to qualification that came into place in 2014. To give New Zealand athletes the incentive of the opportunity to compete in anything other than sprint events and the relay at WOC it is imperative that New Zealand is a Group 2 nation for both men and women, thus ensuring 2 places in both middle and long distance races. Although the aim of achieving Group 1 status is aspirational, the small pool of HP orienteers in New Zealand, and the likelihood that financial constraints will make it impossible to send equally strong teams to WOC every year, means that this is probably unrealistic over the next 5 years.

By the end of 2019:

### 1 **New Zealand should be firmly established in Group 2 for WOC qualification for both men and women.**

In terms of individual performances at WOC the ultimate goal has to be winning medals, or at the very least achieve podium places (top 6). Several present athletes have the ability to do this in one or more disciplines (sprint, middle, long); however the HP structure needs to be fashioned so the necessary environment and support are available to achieve this.

### 2 **New Zealand will have achieved top 10 finishes at WOC for both men and women in the sprint and in either middle or long distance. In the same period there will have been at least 1 podium finish.**



### **3 New Zealand will have achieved top 10 finishes at WOC for both men and women in the sprint relay.**

To achieve these goals it will be essential to have development and squad structures which provide not only a clear pathway for athletes, but also provide suitable coaching and training opportunities. Equally important will be a domestic and Oceania competition schedule which provides both serious competition and development opportunities internally and against Australia. The next 3 goals relate to this.

By 2016

### **4 A robust National Squad system will be in place which provides a clear pathway from school to junior to international elite level and provides appropriate coaching and training at each level.**

### **5 The SuperSeries will be reintroduced for both senior and junior levels to provide a competitive focus in the period February-June which leads into the major international events of WOC and JWOC.**

### **6 To provide experience of international competition at all levels of the squad system regular competition with Australia at schools level will be maintained, and in the case of Pinestars v Bushrangers test matches at both senior and junior level will be established on a regular basis.**

All of the above goals are realistic if sufficient funding is available for HP orienteering. While it is recognised ONZ is unable to provide an unlimited budget, there needs to be a serious discussion at national level of the perception and importance of HP orienteering and its place in the sport. Equally there needs to be a willingness to explore and develop more diverse funding mechanisms.

### **7 Funding mechanisms, both internal and external to ONZ, will be developed so that HP athletes at all levels are provided with suitable support that can help them to achieve their and ONZ goals.**

It is acknowledged some of these goals (e.g. 1, 2 and 7) may be hard to achieve, while others should be relatively straightforward. However, if we wish to raise the profile of orienteering as a serious sport within New Zealand, and to inspire the next generation of athletes, setting high goals is essential.

## **3. EVENT HIERARCHY**

To consider how athletes need to develop from new juniors to JWOC and through to successful competition at senior international level it is pertinent to consider the hierarchy of orienteering events. Such a hierarchy considered appropriate for the development of New Zealand orienteers is shown in Figure 1. Also shown are the suggested avenues for training and coaching at each level. The aim of this is to provide a clear indication of the stages of progress which an incoming, or indeed, any, athlete needs to make on the journey from new junior to senior international level.

At the base of the hierarchy are club events – the first introduction to orienteering for most juniors. With appropriate coaching and help at club level the next stage is successful competition in local Orienteer of the Year (OY) events and at the local regional schools championship. At this stage incorporation into and coaching through a Regional Junior squad should supplement training/coaching through clubs. This should then lead a junior through to competition at regional (e.g. AOA, WOA, SI) championships and at the National Secondary Schools Championships. The best will also at this stage have the opportunity for the first taste of international competition through the Australian Schools Championships, and will also be competing successfully at New Zealand, and possibly Australian and Oceania M/W18 level, as well as seeking selection for JWOC.

These levels move the hierarchy on to international events where the best athletes will have progressed to a National U23 Squad, and from this, hopefully, although there will be some attrition, into a National Senior Squad where the focus is very firmly on the top international events. These include not only WOC and World Cup, but also the World Games (given a lower priority as it is only every 4 years and New Zealand representation is not assured), and the major northern hemisphere international holiday events.



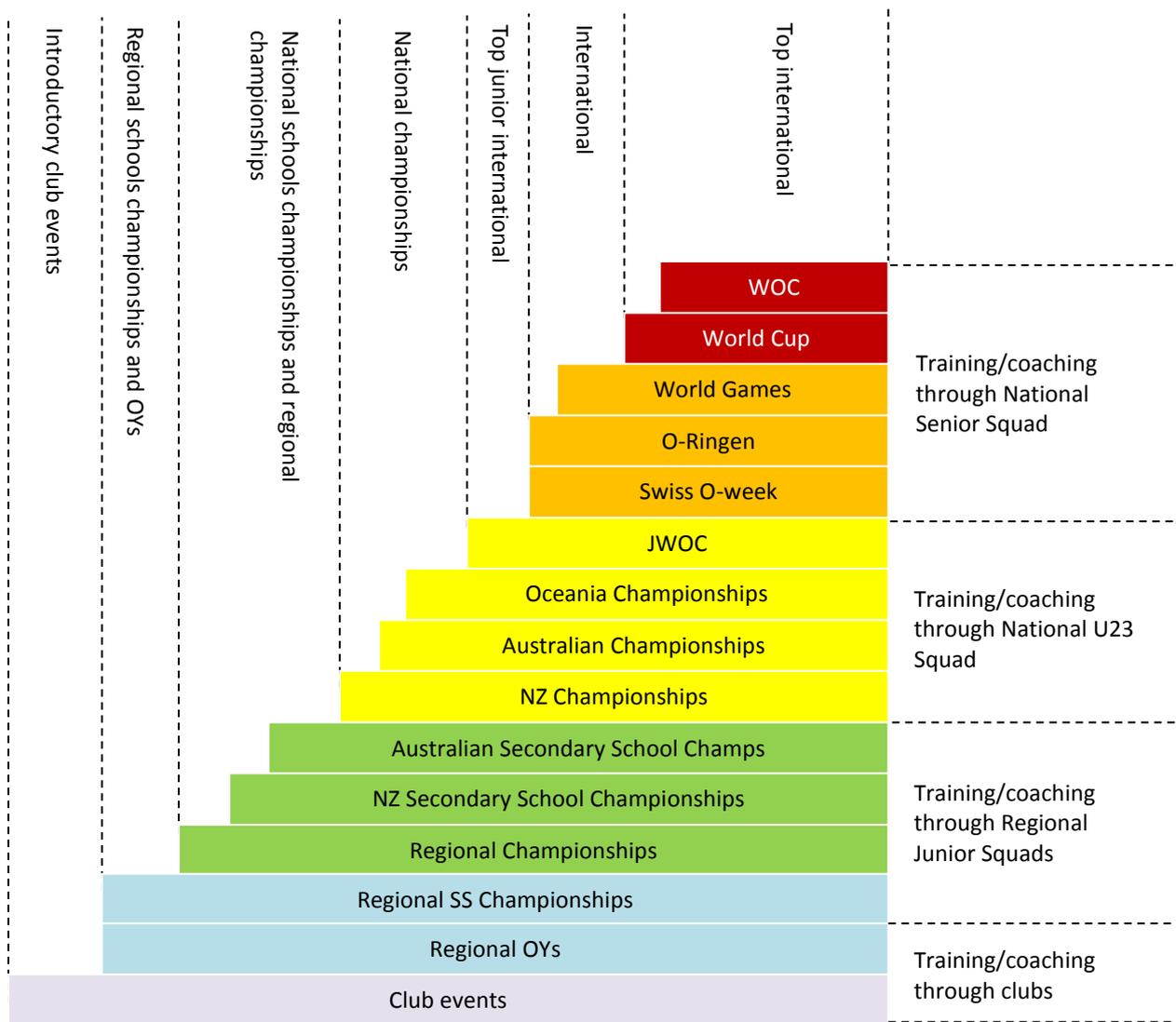


Figure 1: Event hierarchy and training/coaching avenues.

#### 4. SQUAD STRUCTURE

A suitable quad structure for orienteering in New Zealand is implied from Figure 1. Such a structure has to provide for both the present New Zealand elite athletes and also as a development pathway to guide up-and-coming younger athletes through the event hierarchy. With the small financial resources and support structure available in New Zealand replicating relatively complex structures which exist in countries such as Denmark, Sweden and Switzerland is simply not feasible. However, the model used in many such countries, of a tiered squad structure, can be tailored for the New Zealand environment to include elite training and coaching structures as well as provide the necessary development pathway. An appropriate New

Zealand squad structure will have 3 levels, with squad members of all three levels also being members of Regional Squads, is shown in Figure 2.

As will be detailed in Section 5, training/coaching at the National Senior and U23 Squad levels will have a focus on training targeted at top international events. For this to be effective, particularly at training camps, it is necessary that squad members are already of a suitable standard so that training/coaching can remain centred on this level. This demands that there are selection criteria for both the Senior and U23 squads which allow this to be the case. (Note this is in line with a common comment made by current elite athletes that squad membership should not simply be open otherwise it has no meaning in terms of recognition.)





Figure 2: A squad structure for New Zealand orienteering.

Regional Junior Squads will have the role of developing younger athletes to the stage where they qualify for the U23 Squad. This will require regular training/coaching sessions organized at regional level, as well as development of the National Junior Camp so that more advanced juniors are better catered for. The Regional Junior Squads will be based around the regional schools teams and selected in conjunction with the respective regional schools co-ordinators, however they will also need to cater for juniors who have left school but do not qualify for the U23 Squad. Much of the training/coaching offered at this level will come in the context of wider Regional Squads which will include the local members of the Senior and U23 Squads.

#### NATIONAL SENIOR SQUAD

Selection in the National Senior Squad will be based primarily on demonstrated performance at international level. To allow for the fact that some athletes may have limited opportunity for this, selection may also be based on recent performances in New Zealand, Australian and Oceania Championships.

At international level a primary criterion for selection is to have demonstrated over the previous 3 years the ability to finish within a certain percentage of a "base time" in appropriate international events. In a given event the base time is taken as the average time of the first 3 place getters. This allows for the fact that in many high level events there is often a reasonable gap between 1<sup>st</sup> and 2<sup>nd</sup> and 3<sup>rd</sup>. An average of these times is therefore considered to be better as a guide to a desired "target time". Suitable events are deemed to be WOC, World Cup, World Games and also the elite grades at O-Ringen and Swiss O-week.

To set a suitable numerical criterion analysis of the last 11 years (2005-2015) of WOC results has been carried out. This shows that the following averages (with standard deviation) behind the "base time" are necessary to obtain a top 20 place in the respective disciplines.

	Percentage behind "base time" to make top 20	
	Men	Women
Sprint	8.2 ± 2.4	11.7 ± 2.4
Middle	10.6 ± 2.1	17.2 ± 4.6
Long	9.9 ± 2.8	16.5 ± 5.5
Middle & Long combined	10.2 ± 2.4	16.8 ± 4.9

Based on this target times which reflect a potential ability to finish in the top 30 of the middle/long distance at WOC and/or reach the WOC sprint final are gauged to be as follows:

Men      sprint - within 15% of base time  
             middle/long – within 20% of base time;

Women    sprint – within 20% of base time  
             middle/long – within 30% of base time.

The difference in suggested percentages between men and women reflects the strength in depth of fields in women's orienteering, even at international level, is not as high as for the men.

Because personal and financial circumstances may prevent an individual from competing sufficiently at international level over a period of 2-3 years, there also needs to be qualifying criteria for the National Senior Squad based on performances at more local events. A suitable criterion here is to have demonstrated medal winning performances at the New Zealand, Australian or Oceania Championships, or to have already been selected for WOC in the preceding 2 years.

Qualifying criteria for the National Senior Squad are either:

- (1) In the last three years to have had three finishes in named international races\* that meet the following criteria to finish within:

Men      20% of the average time of the first 3 place getters in middle or long



distance races, or within 15% of the average time of the first 3 place getters in sprint races;

Women 30% of the average time of the first 3 place getters in middle or long distance races, or within 20% of the average time of the first 3 place getters in sprint races.

- (2) In the last 2 years to have been selected for the World Orienteering Championships.
- (3) In the last 2 years to have 3 finishes in the top 3 in elite grade out of the New Zealand Orienteering Championships, the Australian Orienteering Championships, and the Oceania Orienteering Championships.

\* Suitable races are:

- a) WOC and WC Sprint Distance Qualifying and Final races;
- b) WOC Middle and Long Distance Finals;
- c) WC Middle and Long Distance races;
- d) World Games Sprint and Middle Distance races;
- e) Elite grades at O-Ringen or Swiss O Week.

#### NATIONAL U23 SQUAD

Selection criteria for the National U23 Squad are somewhat more problematic due to the lack of international opportunities at this level. It seems sensible, however, to base the primary selection criterion on selection for JWOC over the previous 2 years. This then allows athletes who attend JWOC at their last opportunity, but who have not achieved qualifying criteria for the Senior Squad, to remain in the U23 Squad for 2 further years while they attempt to reach Senior Squad level.

As competition for JWOC places is intense it is, as for the Senior Squad, desirable to have alternative qualifying criteria, and these should again be based on performance at New Zealand, Australian and Oceania Championships.

Qualifying criteria for the National U23 Squad are either:

- (1) In the last 2 years to have been selected for the Junior World Orienteering Championships.
- (2) In the last 2 years to have 3 finishes in the top 5 out of the New Zealand Orienteering Championships, the Australian Orienteering Championships, and the Oceania Orienteering Championships in M/W20E, or in M/W18A in the Oceania Orienteering Championships.

- (3) Be a minimum age of 18 at some point during the year following squad selection.

The omission of placings in the M/W18 grades as qualifying criteria using the New Zealand or Australian Championships is based on the observation that fields in these grades at these events are often relatively weak and not heavily populated. On recognition of this it has been proposed that at the New Zealand Championships the M/W20A and M/W18A grades be replaced by M/W17-20E and M/W17-20A.

The age criterion reflects the complexity which can be encountered of having a wide age range in a squad, especially when this is extended through joint residential training camps with the Senior Squad. It is recognized that athletes who do not meet this criterion are sometimes selected for JWOC, and it is proposed athletes in such a situation should be named as Associate Members of the U23 Squad. This will recognize their status and will allow them to participate in non-residential camps.

#### REGIONAL JUNIOR SQUADS

The underlying Regional Junior Squads should be selected on the basis of domestic competitions. Regional squads should be based, at a minimum, in Auckland (upper North Island), Wellington (lower North Island) and Christchurch (South Island). There will be considerable overlap between these and the older age grades in regional schools squads (such as compete at the inter-area challenge at Queen's Birthday) and this overlap will be used as a pathway for younger athletes to move into the higher levels.

Final criteria for any squad membership are also necessary

- (i) current membership of ONZ, and
- (ii) a demonstrated commitment to squad activity and the setting of orienteering goals.

Squads will be selected each October with membership reviewed against selection criteria each year. Note membership of any squad is not a pre-requisite for selection for JWOC, WOC, or any other New Zealand team, and additions to squads may be made throughout the course of a year.

## 5. COACHING, TRAINING AND MANAGEMENT FOR HIGH PERFORMANCE

It was noted above that New Zealand has very few coaches with the necessary experience to provide support to the HP squad structure. It is essential therefore the coaches we do have are used to the greatest effect, and their knowledge is used to guide others in helping to provide quality coaching throughout the squad structure.



To this end it is proposed that a “National Coaching Co-ordinator (NCC)” be appointed. The person appointed to this role would be expected to fulfil the following:

- act as a mentor and source of advice for less experienced coaches
- provide instruction through running a coaching workshop each year
- lend guidance on the planning of suitable training/coaching exercises for national squad camps
- lend advice on regional junior camps as requested
- attend national training camps where possible

Clearly the NCC will have a significant input into Senior and U23 squad camps and guide the coaching at this level. However, input into the coaching and training to be provided through the Regional Junior squads is possibly more essential as this will ensure that an approach is adopted which teaches and reinforces orienteering skills rather simply providing unguided exercises. With this in mind, an immediate goal should be a Junior Development meeting held in association with Waitangi weekend 2016 in Wellington, with a likely preliminary meeting prior to the 2015 National Junior Camp in Auckland. This should have an aim of formalising the structure, purpose and goals of the Regional Junior Squads, and the manner of their interaction with the NCC.

In terms of delivery of coaching, during each year it is proposed there should be *at least* one joint training camp for the Senior and U23 Squads. The most suitable time for this is April-May in the lead up to the major international competition season. The National Junior Camp will continue in the present time frame prior to Christmas, but will develop an improved programme for those juniors just below the level of the U23 National Squad. Outside the major camps at Senior/U23 level there will be additional camps, possibly focussed on subsets of the Senior and U23 Squads as appropriate (e.g. JWOC team camp, WOC team camp etc.).

Additional training/coaching opportunities for these levels, as well as for the Regional Junior squads will come through regular sessions provided for the wider Regional Squads. It is expected these squads will hold regular (e.g. at least monthly) training days in addition to forming regular training groups. Additional junior training/coaching should also occur through regional training camps as held for example by Hawkes Bay and Wellington. The organization of regional training/coaching groups will be undertaken by a small number of interested people in each centre, who coordinate with both the NCC and the Regional schools coordinator.

The proposed linkages between the Senior Squad, the Under 23 Squad, the Regional Junior Squads, HP Leader, National Coaching Co-ordinator, Regional Squad leaders and school co-ordinators are shown in Figure 3.

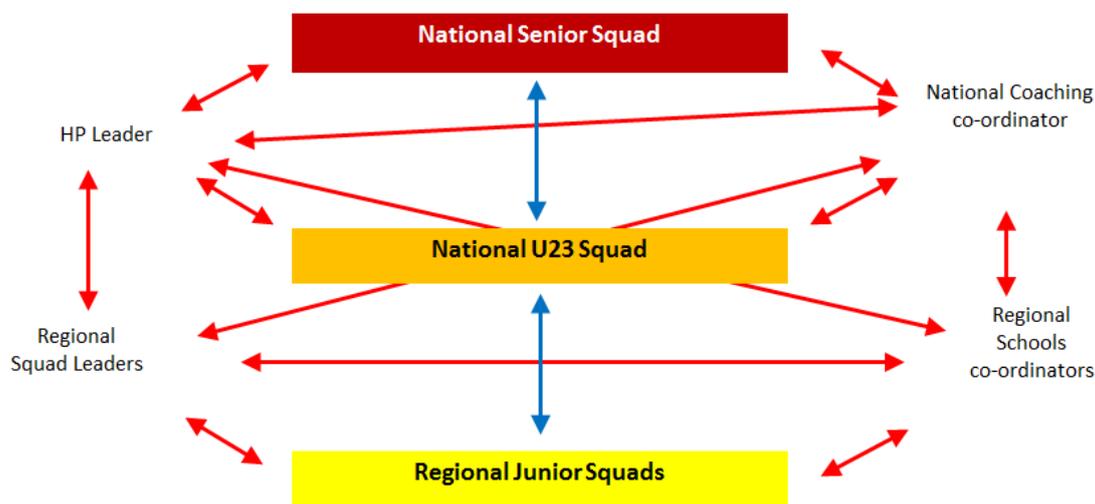


Figure 3: Squad and leader linkages.

In Figure 3, blue arrows represent upward and downward mentoring and training relationships between athletes at different levels, while red arrows represent lines of communication.

At the individual athlete level every athlete in the HP squads should be invited to fill in a form listing their goals for the coming year, and an analysis of their

strengths and weaknesses. This can be used to inform the NCC, camp and regional squad coordinators.

If New Zealand orienteers are to perform on the world stage, as well as having a coaching and training structure, it is also essential they are given an appropriate support structure actually at events such as WOC and JWOC. What must be recognised is this



structure is independent of the size of the team. At such events there are multiple tasks to be covered, which include:

- attendance at officials meetings;
- physical presence at quarantine, pre-start, finish, and in coaching zones at arena run-throughs;
- organisation of athlete pre-event training;
- organisation of transport to events.

The sum of these tasks is such that a single person is not able to perform them all adequately. This is especially so in terms of being a presence at quarantine, pre-start etc. Thus it is an imperative that WOC and JWOC teams (and also the schools team to Australia, where an additional task is being in *loco parentis*) all have a minimum of two officials. In addition there needs to be concerted effort to widen the support structure at WOC/JWOC to include other appropriate New Zealanders who may be in attendance.

## 6. AN EVENT STRUCTURE FOR HIGH PERFORMANCE

Unless they are living in Europe the opportunity for top level competition for New Zealand athletes is limited. Many junior athletes find being at the top level in New Zealand requires a big step-up to compete even moderately well at JWOC, while the step from JWOC to elite level at WOC and WC is equally, if not more, daunting. It is imperative therefore that HP orienteering has both a strong domestic competition and maximizes the opportunity to interact with our Australian counterparts.

The SuperSeries has been re-launched in 2015 at both senior and junior levels. To allow for athletes to plan training programmes, as far as possible the programme for this should remain stable from year to year. As stated in Goal 5 the period for the SuperSeries is proposed be February-June which leads into the major international competitions. The developing variety of races at WOC and WC (e.g. the introduction of the sprint relay) also means that the SuperSeries should ideally include all disciplines (including both forest and sprint relays), although, of necessity, the breakdown of these will vary from year to year. A suitable structure for 4 rounds of the SuperSeries is:

- Round 1 Waitangi Weekend (e.g. sprint series)
- Round 2 New Zealand Championships (Easter)
- Round 3 A further round in late April/early May
- Round 4 Queens Birthday

To ensure that in any given year SuperSeries events are relatively evenly spread around the country there needs to be long-term planning in association with the ONZ major events programme. For example, the SuperSeries

dates for 2016 should be known and advertised well before the end of 2015.

Apart from high level domestic competition it is important the top athletes at all levels of the squad system have exposure to international competition. This happens already for the Junior levels in the form of competing in the Australian Schools Championships. This arrangement is well locked in and should remain a focus for the top school athletes. At the next levels up (U23 and Senior Squads) it is important that Pinestars-Bushrangers Test Matches be re-established on a regular basis. However, it needs to be recognized that both of these competitions provide opportunity for giving athletes their first taste of international competition. It is strongly recommended therefore that selection of these teams takes place with this in mind and in particular

- athletes selected for JWOC should not be selected for the Schools team at the Australian Schools Championships in the same year
- selection of teams for Test Matches takes into account the developmental aspect and is not based solely on performance.

## 7. FUNDING FOR HIGH PERFORMANCE

Implementation of much of the preceding proposals is to a greater or lesser extent dependent on the availability of a sufficient level of HP funding. Although activities such as training camps are eligible for community and gaming trust funding, even this requires forward planning which necessitates a regular programme to be established. However, teams to specific events are much harder to fund externally and it is in these areas which Orienteering New Zealand needs to target HP funding.

## 8. RECOMMENDATIONS FOR HIGH PERFORMANCE ORIENTEERING IN NZ

To summarize, the goals for HP orienteering are

By the end of 2019 New Zealand:

- 1 Should be firmly established in Group 2 for WOC qualification for both men and women.
- 2 Will have achieved top 10 finishes at WOC for both men and women in the sprint and in either middle or long distance. In the same period there will have been at least 1 podium finish.



- 3 Will have achieved top 10 finishes at WOC for both men and women in the relay, and in the sprint relay.
- 4 A robust National Squad system will be in place which provides a clear pathway from school to junior to international elite level and provides appropriate coaching and training at each level.
- 5 The SuperSeries will be reintroduced for both senior and junior levels to provide a competitive focus in the period February-June which leads into the major international events of WOC and JWOC.
- 6 To provide experience of international competition at all levels of the squad system regular completion with Australia at schools level will be maintained, and in the case of Pinestars v Bushrangers test matches at both senior and junior level will be established on a regular basis.
- 7 Funding mechanisms, both internal and external to ONZ, will be developed so that HP athletes at all levels are provide with suitable support that can help them to achieve their and ONZ goals.

To make these goals achievable the following series of recommendations are put forward with associated timings.

- 1 A new HP squad structure as outlined above should be implemented as soon as possible. National Senior and Under 23 Squads should be selected on the basis of specified criteria and named by the end of October 2015.
- 2 Regional Junior Squads should be selected by the end of November 2015, as part of Regional Training Groups.
- 3 A suitable person to fill the role of National Coaching Co-ordinator should be identified and appointed by the end of November 2015.
- 4 A Junior Development meeting should be held prior to the National Junior Camp in December to formalise training and coaching structures associated with all squads.
- 5 Long term planning for a successful and sustainable SuperSeries should be put in place. The structure of the 2016 SuperSeries should be decided before the end of November 2015.
- 6 Pinestars-Bushrangers Test Matches should be (re)-established on a regular basis.
- 7 An established policy should be adopted that all New Zealand teams (WOC, JWOC and Australian

Schools should have a minimum of two officials accompany them.

## 9. TIMELINE FOR IMPLEMENTATION

31 October 2015	National Senior and U23 squads announced
Oct/Nov 2015	HPL holds discussions with regional Junior Co-ordinators regarding make-up of Regional Junior Squads Discussions on appointment of National Coaching Co-ordinator
From late 2015	Appointment of National Coaching Co-ordinator Regional Junior Squads announced 2016 SuperSeries and Pinestars-Bushrangers Test Matches finalised Organisation of National Senior & U23 Squad prior to Anzac Weekend
Dec 2015- Feb 2016	Meetings on Junior Development

## 10. CONCLUDING COMMENTS

High Performance orienteering in New Zealand is at a crossroads. The potential exists to move to new heights at international level - there is a wide pool of school age talent that is already feeding into the higher Junior levels, the New Zealand Schools team continues to dominate its Australian counterparts, results at JWOC are at an all-time high, and there are promising signs of possible success at WOC. For these achievements to be continued and new ones attained it is essential that a structured High Performance system is put in place. This system should deliver international results of the highest calibre and at the same time develop a path for young athletes so that such results are continued into the future. The alternative choice is to continue on the path of recent years where the occasional top result may be achieved due to the dedication of individual athletes, but overall New Zealand remains a minnow on the international stage.

### Acknowledgements

The preparation of this plan has benefitted enormously from input received through team meetings of the WC and ANZ teams in Tasmania, from feedback received after a presentation at Tour de Peninsula, and from individual comments and support provided by, among others, Renee Beveridge, Jenny Cade, Jean Cory-Wright, Rob Garden, Lizzie Ingham, Matt Ogden, Sarah O'Sullivan, Lara Prince, Tom Reynolds, Laura Robertson, John Robertson and Nick Smith.

