

19-06 Sports Turf Skills Update



Summary of Feedback, Responses and Actions

4 February 2019

This project includes the review of 4 qualifications and 17 units of competency within the *AHC Agriculture, Horticulture, Conservation and Land Management Training Package*. Draft materials were developed as a result of initial input from Subject Matter Experts (SME) and were made available for broader stakeholder consultation and feedback between 25 October and 25 November 2018. One unit was made available from 21 December 2018 to 23 January 2019. During this time feedback was received via email, through online surveys, as well as in person at workshops. Input was received from 35 stakeholders around Australia, including 18 from Registered Training Organisations, 5 from Government bodies such as State Training Authorities and 12 industry representatives

As a direct result of feedback received, several changes were made to the documents under review. Mostly notably:

- Changes to the packaging rules, core units and electives for Certificate 2, Certificate 3 and Diploma qualifications.
- Significant changes to *AHCTRF202 Prepare turf surfaces for play* to remove machinery from the unit. The unit has become *AHCTRF2XXX Assist in the preparation of turf surfaces for play* which more accurately reflects the unit's outcomes.
- Adding of elements and performance criteria in some units of competency.
- Minor adjustments to the Performance Criteria, Foundation skills, Performance Evidence and Knowledge Evidence in most units of competency.
- Aborting the proposed new unit *AHCTRF5XX Design sand based profile for sports turf surfaces* and adding the critical outcomes from this unit into the redesigned *AHCTRF501 Plan the establishment of sports turf playing surfaces*
- Minor changes to the units listed in three of the proposed new skill sets
- Aborting the proposed new skill set titled *Design irrigation and drainage systems for sports turf*

[Visit the Skills Impact website](#) to view a full list of the documents that were submitted for consultation during this phase.

Below is a summary of the issues raised and how these issues have been resolved. This involves consideration of the information provided, views of industry stakeholders where known, and views provided by the people who are part of the Subject Matter Expert Working Group process. Resolutions are constructed to take into account the needs and views of stakeholders to the extent possible, and to comply with the *Standards for Training Package 2012*. The resolutions may represent a compromise on one or more stakeholder views with the aim of a workable outcome for industry, State and Territory Training Authorities (STAs) and training providers.

The documents are now available to view and validate on the [Skills Impact website](#) until 17 February 2019

Summary of feedback on qualifications

AHC2XXX Certificate II in Sports Turf Management

There was overall support for the streamlined Certificate 2 for providing a pathway into an apprenticeship. The smaller number of units in this qualification should increase the potential for the qualification to be delivered in secondary schools and attract potential entry level workers to the sports turf management industry.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC2XXX Certificate II in Sports Turf Management		
<ul style="list-style-type: none"> RTO NSW, Ind Vic, Ind NSW, Ind WA, RTO Qld, RTO Vic, RTO WA, Ind Qld, Ind SA, 	Expressed support for the qualification and saw benefits to the industry in its design and structure	No action required
<ul style="list-style-type: none"> RTO ACT, Ind WA, 	Core and Elective Units - Recommended irrigation to be added to the qualification	There are three irrigation units listed in the core of to the qualification
<ul style="list-style-type: none"> 2 X RTO Qld 	Core and Elective Units - Recommended AHCTRF201 Assist with Turf Construction be moved from the Core to Electives.	AHCTRF201 has been moved to Electives
<ul style="list-style-type: none"> RTO Qld 	Core and Elective Units - Remove AHCPGD201 Prepare and maintain plant displays and FSKNUM23 and FSKRDG03 units to be removed from the qualification	AHCPGD201, FSKNUM23, FSKRDG03 were removed from the qualification

AHC31316-Certificate-III-in-Sports-Turf-Management

Overall the feedback provided support for the Certificate 3 with recommendations for relatively minor changes to the mix of Core and Elective units of competency particularly those related to irrigation and turf construction. Some feedback raised concerns regarding the funding of training and assessment due to the increased size of the qualification. This increased size was driven by industry to ensure that the qualification resulted in well- skilled trades people. Some RTO's raised concerns about the changes made to strengthen the Assessment Requirements, commenting they would have difficulty in meeting the more stringent requirements within their current delivery strategy.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC31316 Certificate III in Sports Turf Management		
<ul style="list-style-type: none"> 2 x RTO NSW, RTO ACT, Ind WA, Ind SA, Ind Vic, Ind SA, Ind Qld, Ind SA 	<p>Overall support and endorsement of the Certificate 3 with the total number of Units.</p> <p>Some expressed a preference for changes to Core and Electives see comments below</p>	No action required
<ul style="list-style-type: none"> Ind Qld, RTO Qld, 	<p>Concern that the qualification did not adequately address specialisations such as preparation and maintenance of cricket wickets.</p>	No action required. The SMEs advised there was sufficient depth in existing units to cater for all sports turf surfaces and RTO's can contextualise the training and assessment as required to cover specialised sports surfaces, including cricket. A cricket ground is also listed as a surface in Performance Evidence of several AHCTRF level 3 units.
<ul style="list-style-type: none"> RTO NSW, 	<p>Had concern for the Licencing statement</p>	Licencing statement has been changed
<ul style="list-style-type: none"> RTO NSW 	<p>Elective units - Requested a forklift unit to be added as an elective option</p>	<p>Fork lift unit has not been added.</p> <p>The SMEs advised forklift operation is a specialised work function that few sports turf tradespeople required. Those that wanted the unit or other specialised units could import them through the importation provision in the packaging rules.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC31316 Certificate III in Sports Turf Management		
<ul style="list-style-type: none"> Ind NSW, RTO ACT, Ind WA 	<p>Skills Impact used the draft qualification to seek stakeholder views on whether to include a few suggested research and business units in the Electives of the Certificate 3.</p> <p>Most feedback providers commented there was no need for the suggested research and business units in the Electives, as these detracted from the core industry outcomes required of a sports turf tradesperson.</p>	<p>The research and business units have been removed from the qualification. If an organisation or individual considered there was a need for research or business skills to be included as part of their training plan, there is opportunity to import units through the provision in the packaging rules.</p>
<ul style="list-style-type: none"> RTO ACT 	<p>AHCPCM302 - Provide information on plants and their culture was not suitable for qualification since it was based more around other sectors</p>	<p>AHCPCM302 has been removed from Electives</p>
<ul style="list-style-type: none"> RTO ACT, Ind WA, RTO Qld 	<p>There was discussion on the number of irrigation units in the Core and Elective units. Some respondents suggested less other more and others that there was sufficient.</p>	<p>Irrigation units were retained in the Core but removed from Electives. SMEs advised there was sufficient in the Core. If further irrigation units are needed, they can be imported through the provision in the packaging rules.</p>
<ul style="list-style-type: none"> Ind SA, Ind Qld, RTO Qld, Ind SA 	<p>Concerns were raised that the Qualification Description did not adequately describe the job roles</p>	<p>The Qualifications Description has been modified to read – “This qualification describes the skills and knowledge for trade level roles carried out under broad supervision within sports turf management.”</p>
<ul style="list-style-type: none"> RTO Qld, Ind Vic, 	<p>Raised the issue of costs and time frame, and nominal hours for the delivery of this revised qualification with an increase in required units in the Packaging Rules.</p>	<p>The SMEs advised the sports turf industry requires trades people that have broad range of skills and knowledge to address skills required for various sectors of the industry. The Qualification was designed to achieve these skills outcomes and make trades people more employable. Issues of funding, nominal hours and training duration are the responsibility of State or Territory funding bodies and RTO's.</p>
<ul style="list-style-type: none"> Ind SA, 	<p>Raised a concern for the sequenced delivery of the AHCTRF301 should be delivered at the end of the course</p>	<p>Sequencing of training and assessment of units within a training program is the responsibility of Registered Training Organisations who need to consult with the learner and the learner's employer in the development of a training plan for the individual learner. RTOs should also consult with industry to assist in course</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC31316 Certificate III in Sports Turf Management		
		development, delivery and assessment through the validation processes in accordance with the <i>Standards for RTOs (2015)</i> - Clauses 1.5 and 1.6 – Engaging with industry. Validation processes provide another opportunity for industry to influence the sequence of the delivery.
<ul style="list-style-type: none"> RTO Qld, RTO Qld, 	<p>Changes to the mix of Core and elective units including:</p> <p>HCTRF301 Construct turf playing surfaces to be removed from core</p> <p>AHCSOL303 Better suits the turf industry, having the AHCSOL401 as an elective is a good reinforcing unit</p>	<p>HCTRF301 was moved to the Electives</p> <p>Soils units were reviewed and Core and Electives were adjusted.</p>
<ul style="list-style-type: none"> Ind WA 	<p>Recommended the inclusion of AHCWRK309 Apply environmentally sustainable work practices</p>	<p>AHCWRK309 Unit was included in the electives</p>

AHC40816-Certificate IV in Sports Turf Management

See “Summary of feedback on components proposed for deletion” section below.

AHC51016 Diploma in Sports Turf Management

Based on feedback, several significant changes have been made to the qualification, including the units listed in the Core and Electives. The number of Australian Qualifications Framework (AQF) Level 4 units was one of the main concerns in the core and electives, and many of these have been removed to reduce the amount of duplication and to ensure the qualification’s alignment with AQF level 5. The number of units required to achieve the qualification has been reduced from 15 to 14.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC51016 Diploma in Sports Turf Management		
<ul style="list-style-type: none"> Ind NSW, Ind NSW, RTO Vic, 	<p>The new unit AHCTRF5XX Design sand based profile was not supported and a call to return the old unit (AHCTRF501 Plan the establishment of sports turf playing surfaces) or redesign this new unit.</p>	<p>AHCTRF501 has been redesigned with content from AHCTRF5XX included to improve and extend the original unit. See comments in Units section of this report below.</p>
<ul style="list-style-type: none"> Ind NSW, RTO NSW, Ind NSW, RTO ACT, Ind WA, RTO Vic, Ind SA 	<p>Core Units:</p> <p>Discussion on the Core Units including: The total number of core units and the units to include. Differences between the respondents as to which units to include or delete. Much concern was raised where Level 4 units were included when Level 5 Units would adequately address the same content.</p> <p>Recommended inclusions in the core: AHC DRG501 Design Drainage Systems AHCIRG 504 Develop an irrigation and drainage management plan</p>	<p>The following units were removed from the core:</p> <ul style="list-style-type: none"> AHCSOL401 Sample soils and interpret results AHCIRG408 Schedule irrigations AHCMOM501 Manage machinery and equipment AHCPMG508 Develop a system to monitor and evaluate the pest management plan (moved to electives) AHCWRK505 Manage trial and research material (new unit) AHCTRF5XXX Design sand based profile for sports turf surfaces <p>The following units have been added to the core:</p>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution	
AHC51016 Diploma in Sports Turf Management		
	<p>AHCWHS501 Work Health and Safety AHCWRK511 Sustainability AHC SOL401 Sample soils and interpret results</p> <p>Recommended remove from core: AHC SOL401 Sample soils and interpret results AHC PMG508 Develop a system to monitor and evaluate the pest management plan</p>	<ul style="list-style-type: none"> AHCTRF501 Plan the establishment of sports turf playing surfaces (which has been redesigned to include key content from the draft AHCTRF5XXX Design sand based profile for sports turf surfaces) AHCTRF502 Manage sports turf renovation programs (moved from electives) AHCTRF504 Manage sports turf facility assets (moved from electives) AHCIRG501 Audit irrigations (moved from electives to replace AHCIRG408 Schedule irrigations)
<ul style="list-style-type: none"> Ind NSW, RTO ACT, Ind WA, RTO Qld, RTO Vic, Ind SA, 	<p>Elective Units - recommended inclusion in Electives</p> <p>AHCIRG503 Design irrigation, drainage, and water treatment systems</p> <p>AHCDRG 501 Design drainage systems</p> <p>Recommended remove from electives</p> <p>AHCTRF401 Develop a sports turf maintenance program</p> <p>AHCTRF402 Plan and implement sports turf renovation</p> <p>AHCIRG503 Design irrigation, drainage, and water treatment systems</p> <p>AHCAGB501, Develop climate risk management strategies</p> <p>Change title word 'Design' to 'Develop' in AHCIRG502 – Design Irrigation System Maintenance and Monitoring Programs as this is not a design function but program development</p> <p>Irrigation design units in AHC are poorly written and don't meet the needs of the industry. Recommend CPCPPS5027A which is a better irrigation design unit.</p>	<p>Remove the following AHC irrigation units in the electives and replace with CPCPPS5027A Design irrigation systems:</p> <ul style="list-style-type: none"> AHCIRG502 Design irrigation system maintenance and monitoring programs AHCIRG503 Design irrigation, drainage and water treatment systems AHCIRG503 Develop an irrigation and drainage management plan <p>The following units have been removed from the electives:</p> <ul style="list-style-type: none"> AHCBUS402 Cost a project AHCLSC502 Manage landscape projects AHCTRF401 Develop a sports turf maintenance program AHCTRF402 Plan and implement sports turf renovation CPPWMT5043A Develop and implement an environmental management strategy AHCBUS605 Manage human resources BSBPMG515 Manage project human resource <p>The following units have been added to the electives:</p> <ul style="list-style-type: none"> AHCAGB501 Develop a climate risk management strategy AHC PMG508 Develop a system to monitor and evaluate the pest management plan (moved from core)

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC51016 Diploma in Sports Turf Management		
		<p>The recommended title change for AHCIRG502 Design irrigation system maintenance and monitoring programs is not within the scope of this project. This feedback will be referred for consideration to the project that is currently reviewing the AHC Irrigation units.</p> <p>Users that want additional irrigation units can import these through the importation provision of up to two units allowed in the packaging rules.</p>
<ul style="list-style-type: none"> Ind NSW, 	<p>Suggestion for an alternative to CUAACD302 - Produce computer-aided drawings:</p> <p>MEM30031A - Operate computer-aided design (CAD) system to produce basic drawing elements - option</p>	<p>MEM30031A refers to engineering and manufacturing environments in the application. The CUAACD302 is more generic and may be used to meet the desired outcomes for sports turf management professionals so is retained</p>
<ul style="list-style-type: none"> Ind NSW, 	<p>General overall acceptance of the qualification</p>	<p>No action required</p>
<ul style="list-style-type: none"> RTO ACT, RTO Qld, RTO Vic, Ind Vic, Ind SA, Ind Qld, 	<p>Packaging rules:</p> <p>The Diploma as is could potentially have 9 level 5 units and 6 level 4. Should be heavier with level 5 units</p> <p>Both support and concerns were raised:</p> <ul style="list-style-type: none"> Too many units. Danger of it being long and expensive and therefore not taken up. 12 units, 8 core would be better. Where's the opportunity to do a couple of 'outsiders'? Each training provider or location or even industry sector might want the flexibility to include a level 5 unit from another package e.g. CAD or irrigation design or spray technology etc. I reckon maybe 6 cores, 4 electives and 2 outsiders. That's 12. 15 is too many. <p>Response from RTO's for retention of number of units:</p>	<p>The issue with too many level 4 units has been resolved by reducing level 4 units in both Core and Electives</p> <p>The number of electives that can be selected from units not listed in the qualification increased from 1 to 2</p> <p>The number of units required to achieve the qualification has reduced from 15 to 14, with the core reduced from 12 to 10, and the electives increased from 3 to 4.</p>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution	
AHC51016 Diploma in Sports Turf Management		
	<ul style="list-style-type: none"> • Supports the higher number of units: This is the highest level qualification, needs to provide a good spread of knowledge and skills. Fifteen units are required to meet that. • Agree with the amount of units listed. If we lessen the units delivered after removing a course then we are shorting the knowledge requirements it is believed the industry needs. If the industry needs the knowledge and skills then it will be required to taken up • Agree with 12 core / 3 elective <p>The increase of units in the Diploma from 10 to 15 makes this qualification more relevant and robust. It now reflects the complexity of the various management roles within the sports turf management industry.</p>	
<ul style="list-style-type: none"> • Ind Qld, Ind SA, RTO Vic, RTO Vic, 	<p>Any opportunity for industry to consider someone that has completed say 2 of the new Cert IV skills sets plus 5 years' experience as being eligible for diploma?</p> <p>5 years' experience in the trade</p> <p>If the apprenticeship is a prerequisite I do not agree with making a qualified tradesman wait before beginning the diploma is a good move for the industry. If the diploma is what we want our facility manager to obtain, then this effectively prevents somebody from progressing within the industry. it is hard enough to retain good workers as it is.</p> <p>Two industry stakeholders suggested to "Add '5 years' experience' to the entry requirements to ensure students have practical skills in turf management prior to doing the diploma. 5 years can include time as an apprentice.</p> <p>An RTO stakeholder commented that 5 years' experience stops many students flowing on from their certificate III studies.</p>	<p>Completion of the Certificate III has been stipulated as the entry requirements for this qualification. The Certificate III has a nominal duration of four years when completed as an apprenticeship in every state other than Queensland where it three years. It was decided that it would not be prudent to impose a restriction of 5 years' experience.</p> <p>The proposed new skills sets have been designed to provide further technical and management skills existing sports turf trades people and those that have already the Certificate 3. The skill sets can also provide a pathway for Certificate 3 graduates into the Diploma, with direct credit transfer for several Diploma level units.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC51016 Diploma in Sports Turf Management		
<ul style="list-style-type: none"> RTO Qld, 	Description: Good - Remove turf producer from the Qual description.	Turf producer was not included in the first draft of the Diploma, the reference to turf producer has been removed in the Certificate 3 to better reflect job outcomes

Summary of feedback on units of competency

TRF - Turf units

In general, the revised units of competency were well-received and supported. Some individual units required additional work subsequent to the feedback to ensure they captured industry needs. These changes are listed in the table below.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHCTRF101 Support turf work		
<ul style="list-style-type: none"> Gov Vic, 	Performance Evidence - Recommended a minor change to the PE <ul style="list-style-type: none"> handled materials, plant debris and equipment safely while completing turf activities 	Change made
<ul style="list-style-type: none"> Ind NSW, 	Knowledge Evidence - Supported the unit and recommended a minor change to Knowledge Evidence with possible inclusion of pest control legal requirements	Change unnecessary as the Performance Criteria do not require this level of attention at for a unit that reflects AQF level 1 outcomes
<ul style="list-style-type: none"> Gov Vic, 	Performance Evidence - Recommended change to PE: Disposed of waste materials: ...according to workplace procedures	Change made
AHCTRF201 Assist with turf construction		
<ul style="list-style-type: none"> Gov Vic, 	Checked mapping between PC's and PE and KE All Level 2 units - is it possible or optimal for consistency to maintain the same PC wording for generic PC activities and just embed the specific task for each of the different units – i.e. soil profile construction / turf renovation / turf construction / prepare turf <ul style="list-style-type: none"> Such as- interpret site and construction plans PC's across all four units Identify work health and safety hazards... Select safety equipment, signage and barriers... 	No action required Minor changes made to AHCTRF201 and AHCTRF202 to make terminology more consistent across the units

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	The units are well written, sequenced logically and explicit. Just some very minor suggestions marked up in the attachments.	
<ul style="list-style-type: none"> Ind NSW, RTO Vic, Gov Vic, Ind SA, 	Performance Criteria - Recommended minor changes to PC 4.3 add "as directed", change PE to assist in locating services, minor change to KE for irrigation, clarification regarding PC1.4, PC4.3 add "as directed"	Minor editing changes to Performance Criteria, Performance Evidence and Knowledge Evidence
<ul style="list-style-type: none"> Ind SA, 	Application - Change reference to sand based profile	Application reworded
AHCTRF202 Assist in the preparation of turf surfaces for play		
<ul style="list-style-type: none"> RTO Vic 	Recommended change to KE for markers	Comments noted and changes applied to Knowledge Evidence
<ul style="list-style-type: none"> RTO NSW 	Performance Criteria - 1.2 Check soil and turf moisture condition against set up plan and adjust where out of specification <i>Remove PC 1.2</i>	Change made
	Performance Criteria - 1.5 <i>Inspect</i> the site condition and report irregularities according to workplace procedures <i>Change "INSPECT" to "CHECK"</i>	Changed to check
	Performance Criteria - <i>Change outcome order:</i> <i>1.1 PPE</i> <i>1.2 Carry out prestart checks including checking and adjusting height and quality of cut</i> <i>1.3 Transport machine safely to site</i> <i>1.4 Remove any portable hazards and Monitor site throughout task</i>	Changes made to the wording for the Performance Criteria
	Performance Criteria - 3.1 Assess turf grass condition against setup plan and report changed conditions to supervisor for assessment and further instructions <i>Remove PC 3.1</i>	Change made

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
Performance Criteria - 4.2 Use measuring equipment, geometry and calculations to locate lines, markers and match play equipment according to setup plan, rules and regulations of intended sport. <i>Remove red text</i>	Change made
Performance Criteria - 4.4 Conduct marking out activities within the timeframe of the sports event schedule and setup plan <i>Include preparation and marking</i>	Change made
Foundation skills - Interpret turf set up plan to identify key information for preparing turf surfaces for play <i>Include: according to the rules of sport</i>	Change made
Foundation skills - Use appropriate terminology to communicate and clarify work requirements with supervisor <i>Include: and clients</i>	Change made
Foundation skills - Estimates and calculates distance, area, volume, time and ratio <i>Uses basic geometry to measure according to the rules of sport</i>	Change made
Performance Evidence - There must be evidence that the individual has prepared turf surfaces for play on at least 3 of the following types of sports turf surfaces: <i>Remove 3 and put 1</i>	Change made
Knowledge Evidence – <ul style="list-style-type: none"> • single hole for golf course including tee and surrounds, rough, fairways and green including moving the hole and location of tee markers • bowling green including the assessment of pace of green • cricket oval including preparation of wicket surface, line marking of wicket and outfield and stump installation • ball sport facility (football, soccer or rugby) including outfield line marking • race track including race surface preparation, line marking, and barrier installation • one other sports turf playing surface selected from: <i>Remove and include Setup for the following sports; golf, bowls, cricket, sporting field/s, racetracks</i>	Change made

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Knowledge evidence - determined the condition of the playing surface and confirmed the work requirement with a supervisor <i>Remove</i>	Change made
	Knowledge evidence - height of cut for grass <i>species</i> <i>Include "and sport"</i>	Change made
	Knowledge Evidence - assessment of turf grass condition prior to setting up <ul style="list-style-type: none"> • colour of sward • length of sward and cutting heights <i>Combine the above two points in red and include "include In relation to turf health and reporting irregularities to the supervisor"</i>	Change made
	Knowledge Evidence - work health and safety hazards, risks and controls when preparing turf surfaces for play including <ul style="list-style-type: none"> • rapid risk <i>assessment</i> <i>Include "for the safety of self, the community and the environment"</i>	Change made
	Knowledge Evidence - • equipment commonly used for preparation of sports turf, their <i>calibration</i> , adjustment and safe use: <i>Remove calibration</i>	Change made
	Knowledge Evidence - • a sports turf facility or an environment that accurately represents workplace conditions in which to demonstrate the preparation and layout <i>at least 3 sports surfaces</i> specified in the performance evidence <i>Remove at least 3 and add "for a" turf surface</i>	Change made
	Knowledge Evidence - • workplace documents including work instructions, turf preparation and setup plan <i>for at least 3</i> specific sports play surfaces specified in the performance evidence <i>Remove "for at least 3"</i>	Change made
• Ind SA	Happy with this unit	No action required

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> Note 	This unit was similar to AHCTRF3XX	<p>The unit has been rewritten to reduce the outcomes to reflect at AQF level 2, including removal of references to machinery.</p> <p>The unit title has been changed to reflect this as an assistant role – AHCTRF2XXX Assist in the preparation of turf surfaces for play.</p>
AHCTRF203 Renovate grassed areas		
<ul style="list-style-type: none"> Gov Vic 	<p><i>Has added mapping to performance criteria table</i></p> <p>Performance Criteria - 1.1 Participate in team meeting to discuss site plans and locate services in consultation with supervisor PE1 1.2 Confirm sports turf renovation work activity with supervisor PE2</p> <p><i>PC numbering in PC4.4 Record activities and report work outcomes according to workplace procedures</i></p>	<p>Corrected numbering of Performance Criteria</p> <p>No action required</p>
	<i>Mapping was also included in response for PC PE and KE</i>	No action required
<ul style="list-style-type: none"> Ind NSW 	<p><i>Chemical amendments for renovations including: fertilisers; ameliorants; growth regulators</i></p> <p><i>Pesticide Act?</i></p>	<p>As this unit reflects AQF level 2 outcomes, reference to the Pesticide Act is not required in the Performance Criteria or the Assessments as the individual operates under a supervisor, who takes this responsibility.</p> <p>No action required</p>
<ul style="list-style-type: none"> Ind SA 	<i>Happy with this unit</i>	No action required
AHCTRF204 Support turf establishment		
<ul style="list-style-type: none"> Ind NSW 	<p>General Feedback - <i>Well presented</i></p>	No action required
	<p>Application - No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of</p>	<p>As this unit reflects AQF level 2 outcomes, reference to the Pesticide Act is not required in the Performance Criteria or the Assessments as the individual operates under a supervisor, who takes this responsibility.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	publication: <i>OH and S requirements</i>	No action required
	Performance Criteria - 2.2 Implement weed control strategies according to turf establishment program and supervisor instructions: <i>Pesticide Act</i>	As this unit reflects AQF level 2 outcomes, reference to the Pesticide Act is not required in the Performance Criteria or the Assessments as the individual operates under a supervisor, who takes this responsibility. No action required
• RTO Vic	Performance Criteria - PC 4.2 Implement turf mowing and rolling practices.... <i>What rolling is occurring in post planting care as part of the establishment? it is not a preparation for play situation?</i>	Reworded and removed "rolling" as part of this PC
• Ind SA	<i>Generally happy with this unit with the following comments.</i> Performance Criteria - 3.3 & 4.5 (Irrigation) - <i>assumes knowledge of irrigation principles and soil water relationships that will not be acquired until Cert III. Include 'as directed' in description.</i>	Added "according to supervisor instructions" since watering will be required under direction of the supervisor
AHCTRF301 Construct turf playing surfaces		
• Ind NSW	Knowledge Evidence - Soil testing techniques and the application of results to the construction process including: - soluble salts <i>Should use Electrical Conductivity not soluble salt. All meters read EC then convert to ppm with a conversion factor of 1EC ds/m = 540ppm or 640ppm (Aust standard) or 720ppm EC is also easier to convert for Osmotic potential</i>	Knowledge Evidence changed to reflect Electrical Conductivity
• Ind SA	General Feedback - <i>this Component should be implemented towards the end on the Cert 3. it's very in depth, not something a 1st or 2nd year would be doing</i>	The comment relates the sequencing of training which is not in the scope of this project - no action required
• RTO ACT	Performance Evidence - Spelling correction: developed an working plan and drawings to scale <i>a working plan</i>	The spelling has been corrected

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<p>Performance Evidence - Operated, cleaned, maintained and stored mechanical excavation and load shifting equipment according to workplace operating and safety procedures</p> <p><i>This needs to indicate tools or equipment. This gives the impression the student needs to use a front end loader, bobcat, excavator or something similar. That won't happen due to licensing requirements in some jurisdictions.</i></p>	The Performance Evidence has been revised to reflect feedback
<ul style="list-style-type: none"> RTO WA 	<p>Performance Criteria - Install irrigation and drainage system</p> <p><i>What if an irrigation system is not required, or for example in Perth most construction is performed on sand. Perhaps add a statement at the end of each performance criteria such as "If Required"</i></p>	<p>This unit requires the installation of irrigation and drainage according to the construction plan, so the installation of irrigation will be done at construction time if it is required by the plan. If the construction plan does not require installation of irrigation, then it won't be required.</p> <p>It is acknowledged that there are stand-alone units that cover installation and drainage, but these tasks are also included a part of this unit that pulls together several smaller work functions into the implementation of complete project to construct a sports turf playing surface according to a construction plan.</p>
	<p>Install irrigation and drainage system</p> <p><i>Install irrigation and drainage are stand-alone units</i></p>	
	<p>Performance Evidence - There must be evidence that the individual has demonstrated the ability to complete a sports turf construction project from concept to completion of a minimum of 100sqm</p> <p><i>What if it is a group activity? for example constructing a target green and the area is 500m2. If I have a class of 15 students is this sufficient. Or do I need an area of 1500m2?</i></p>	Re worded the Performance Evidence to reflect a group or team activity and the need to participate in the construction
	<p>constructed the turf profile according to plans and specifications including: installed sub-base to specification</p> <p><i>In Perth Sand based construction and drainage is not an issue with our sands. Surface drainage and falls are more important.</i></p>	The construction plan and specification will determine the sub base. If there is one it needs to be included, if not then there won't be one
	<p><i>Knowledge Evidence - I agree with comments. We are providing underpinning knowledge in the construction of sport turf surfaces. This is not a unit where we assess students on operating construction field machinery. This is a specialised task and out in industry. As a rule supervisors will employ contractors to operate this type of equipment. If not contactors then staff that have extensive experience with the machinery and equipment</i></p>	The Performance Evidence has been revised to reflect feedback

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<p>Performance Evidence - Physical conditions: a sports turf facility or an environment that accurately represents workplace conditions of a minimum of 100 sqm <i>As per previous comment regarding individual or group activity</i></p>	Re worded the Performance Evidence to reflect a group or team activity and the need to participate in the construction
	<p>Knowledge evidence - soil testing equipment for pH, soluble salts, texture and infiltration rates - <i>EC</i></p>	Have revised Assessment Conditions and included Electrical Conductivity (EC)
• RTO Vic	<p>Install irrigation & drainage system <i>Why is irrigation being installed? it may not be required drainage I understand is a part of a construction</i></p>	See comment above
	<p>Performance Criteria - Agrees with the comments re PE - operated, cleaned, maintained and stored mechanical, excavation and load shifting equip, <i>agree with 143 and 144</i></p>	Performance Evidence has been revised to reflect feedback
• RTO Vic	<p>Agrees with the other comments re operating mechanical excavation equipment: <i>Agree with other comments that students would need external licenses to complete.</i></p>	Performance Evidence has been revised to reflect feedback
	<p>Knowledge Evidence - soil testing techniques <i>Why are we testing the water?</i></p>	Reference to water testing has been removed from Knowledge Evidence
• Ind SA	<p>• <i>Generally happy with this unit with the following comments.</i></p> <p>• <i>Application – I note that this Unit refers to a generic ‘soil profile’ not specifically ‘sand based’. That is good as not all construction is used ‘sand based’ profiles but principles are the same.</i></p>	No action required
	<p>• <i>6.1 – 6.4 Install Irrigation and drainage – should refer to specific units for irrigation and drainage.</i></p>	It is acknowledged that there are stand-alone units that cover installation and drainage, but these tasks are also included a part of this unit that pulls together several smaller work functions into the implementation of complete project to construct a sports turf playing surface according to a construction plan.
AHCTRF302 Establish turf		

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
• Ind NSW	General Feedback <i>Well-presented / written</i>	No action required
• RTO Vic	Performance Criteria - Add to PC 3.1 <i>calculate quantities of amendments, fertilizer and planting material</i>	No need to add here as is covered in the Knowledge Evidence
	Performance Evidence - Principles and practices for establishing turf including: <i>Issues associated with over seeding warm season grasses. Allelopathy</i>	Added to Performance Evidence
• RTO ACT	<i>Looks good</i>	No action required
	Spelling under sod (turf rolls or sheets) and on of the <i>and one of the</i>	Error corrected
• RTO Vic	Performance Criteria - PC 4.3 - Implement turf mowing and rolling practices... <i>what rolling is required in post establishment that is not part of a surface preparation for play?</i>	Removed reference to rolling
• Ind SA	<i>Happy with this unit</i>	No action required
AHCTRF303 Implement a grassed area maintenance program		
• RTO Vic	Performance Criteria - PC 1.5, PC 1.6, PC 3.1, PC 4.1 <i>Yes, I recommend to delete these PC's</i>	Have reworded Performance Criteria to remove any coordination of team except 1.5

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> Gov Vic 	Performance Criteria - PC 1.5, PC 1.6, PC 3.1, PC 4.1 <i>I am not a Turf Mgmt. industry expert, but the proposed wording would effectively preclude someone without a team to supervise from completing the qualification. The qual is an apprenticeship pathway and I can easily envisage that many apprentices would not have a team to supervise and the qual should provide for this. Perhaps some judicious re-wording (see attached for suggestions) might accommodate (by removing supervision requirements but leaving team).</i>	Have reworded Performance Criteria to remove any coordination of team except 1.5
	PC 1.5 Identify priorities and schedule maintenance activities with work team according to maintenance plan: <i>This is fine as it doesn't imply supervision</i>	Left this Performance Criteria
	PC 1.6 Ensure work team follows safety procedures according to workplace and manufacturer instructions.	Removed team
	PC 3.1 Coordinate and monitor work team maintenance activities on site according to maintenance plan	Removed coordinate and team
	PC4.1 Reconcile performance of work team maintenance activities against maintenance plan	Removed team
<ul style="list-style-type: none"> RTO Qld 	Performance Criteria - PC 1.5, 1.6, 3.1, 4.1 - Remove all references to work team coordination, monitoring etc. By far a vast majority of my students do not supervise, they purely work as a tradesperson.	Removed coordinate and team from Performance Criteria
	Unit - Remove all irrigation references – this should be delivered in the appropriate IRG units.	It is acknowledged that there are stand-alone units that cover irrigation, but irrigation is also included a part of this unit that pulls together several smaller work functions into the implementation of a grassed area maintenance program.
	Assessment Conditions - Using the word “must” in the evidence and assessment conditions should be carefully considered. This leaves no room for contextualising the delivery and assessment of the unit.	The term ‘must’ is used in the Assessment Conditions as the items listed in this section are considered mandatory by industry during the assessment of the unit.
	PE and KE - I believe there are too many forms of evidence required for this unit – it needs to be simplified.	The items required in the Performance Evidence and Knowledge Evidence relate directly to the Performance Criteria and have been listed to collect evidence of competency in the unit. No action required

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHCTRF304 Monitor turf health		
<ul style="list-style-type: none"> Ind NSW 	Unit General feedback: <i>Well prepared</i>	No action required
	Performance Evidence - conducted field diagnosis and tests to aid in diagnosing the health issue including: <i>moisture release curve</i>	Changed. See comment below
	Knowledge Evidence - Turf grass species selection for plant health management including: salinity https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3814051/salinity/salt_discussion	No action required
	Knowledge Evidence - rates and recommended treatments to achieve optimum turf grass health objectives including: simple and compound fertilisers: <i>read the label</i>	Added reference to labels and safety data sheets
	Assessment Conditions - Relationships: Access to a specialist advisor: <i>Change to Knowledge of appropriate consultants / sales representative</i>	Specialist advisors can include consultants and sales representative. No action required
<ul style="list-style-type: none"> RTO ACT 	Performance Evidence - Suggests additional field tests and responds to previous feedback comment regarding adding a moisture release curve. PE - conducted field diagnosis and tests to aid in diagnosing the health issue including: <i>Add drainage and infiltration rate, rather than moisture release curve. Also soil temperature</i>	Added recommended content
	Knowledge Evidence - rates and recommended treatments to achieve optimum turf grass health objectives including: simple and compound fertilisers used in the turf industry and their analysis, solubility, salt index, rates & cost. <i>No rates, costs, analysis, salt index, fertiliser types. Only the effects individual nutrients will have on turf growth/health Agree with ability to read label.</i> (agreeing with previous comment above: read the label)	Edited Knowledge Evidence as recommended

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Knowledge Evidence - Pesticides types and rates of application: <i>common pesticides types and application techniques. Not rates.</i>	Added recommended wording
	Knowledge Evidence - Rates and recommended treatments to achieve optimum turf grass health objectives including <i>Use of growth regulators and the concept of growing degree days.</i>	Added recommended wording
• RTO WA	Responds to previous feedback re. adding a moisture release curve in PE - 'conducted field diagnosis and tests to aid in diagnosing the health issue including'... <i>How about leaving it at Soil moisture. We can then decide if we as lecturers want to test for infiltration, moisture release curves, field capacity etc.</i>	Industry has specified their requirement
• RTO Vic	Knowledge Evidence - Importance of plant physiology in plant health including: structural components of turf grasses... <i>Basic physiological processes for insect resistance in turf grass</i>	Added to Knowledge Evidence
	Knowledge Evidence - Importance of plant physiology in plant health including: transpiration <i>Beneficial Endophyte infection of turfgrasses</i>	Added to Knowledge Evidence
	Knowledge Evidence - turf grass species selection for plant health management including: <i>Allelopathy in turfgrasses</i>	Added to Knowledge Evidence
• RTO Vic	Knowledge Evidence - Nutrients and nutrient uptake <i>the point nutrients can be read as the nutrient molecule itself. this needs to be worded in a manner that sees knowledge of what a nutrient is used for in the plant along with how they are taken up</i>	Reworded to reflect this Knowledge Evidence outcome
	Knowledge Evidence - Rates and recommended treatments to achieve optimum turf grass health.... <i>if the rates point is in regard to fertilisers then it needs to only cover - actual N requirements for growth and how to perform the calculations - difference between upfront and slow release sources of nutrition</i>	Reworded to reflect this Knowledge Evidence outcome

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> Gov Vic 	Performance Criteria 2.3 Conduct field diagnoses and tests to aid in identifying plant health issue according to workplace procedures <i>Diagnostic tests or just Conduct field soil tests?</i>	Changed wording to reflect this input
	Performance Evidence - established the scope and scheduling for monitoring turf health for both a warm and a cool season turf grass species and their common health issues <i>Question - are the cool and warm season species in the same turf mix (if health is monitored once but the requirement is for two species?)</i>	Seasonal growth is based on the different species so will be treated separately
	Performance Evidence - conducted field diagnoses and tests to aid in diagnosing the health issue including: <i>Wouldn't you just conduct field tests to aid in diagnosing health issues? Or should the words be diagnostic tests?</i>	Reworded Performance Evidence for clarity
<ul style="list-style-type: none"> Ind SA 	Application - <i>refers to 'high performance' sports turf, reword to include 'all sports turf'. Principles are the same for community sports grounds and premier sports grounds.</i>	Removed reference to 'high performance'
AHCTRF305 Renovate sports turf		
<ul style="list-style-type: none"> Ind NSW 	Unit General feedback <i>Well presented</i>	No action required
	Knowledge Evidence - techniques for conducting field tests for soils including: <i>Include pH and EC</i>	Added to Knowledge Evidence
<ul style="list-style-type: none"> RTO WA 	Knowledge Evidence - techniques for conducting field tests for soils including: <i>Can someone explain what organic fines are, and what are the parameters for measures? Why not just replace with organic matter Traction test to be removed. Too specific and not conducted in many turf facilities</i>	Changed fines to matter Traction test was left as it was requested by SME Group

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> RTO Vic 	Performance Criteria Element 1. - Prepare to renovate turf PC suggestion: <i>Calculation of quantities required for amendments, fertilizer, seed, and sand</i>	New Performance Criteria added to Element 1
	Knowledge Evidence - structure of a sports turf soil profile including... <i>Calculate quantities of amendments/fertilizer/seed /sand required for the renovation procedure</i>	Added to Knowledge Evidence
<ul style="list-style-type: none"> RTO ACT 	Performance Criteria agrees with previous comment to add calculation of quantities required for amendments to the soil. <i>Agree with previous comment</i>	Added to Knowledge Evidence
	Performance Criteria 2 - Prepare renovation equipment <i>2.1 & 2.4 very similar?</i>	Deleted 2.4
	Performance Evidence - performed turf renovation activities safely using equipment, machinery and materials according to renovation schedule and workplace procedures: <i>this must include - coring/spiking, topdressing, scarifying/grooming, shaving/turf cutting, fertilising/adding amendments</i>	Included in the Performance Evidence as sub points for assessment
	Knowledge Evidence - techniques for conducting field tests for soils including... Agrees with previous comments re: KE - 'techniques for conducting field tests for soils including'... <i>agree with previous comments re add surface levels</i>	Added to Knowledge Evidence
	Knowledge Evidence - Turf repairs and regeneration procedures including: <i>Plugging</i>	Added to Knowledge Evidence
<ul style="list-style-type: none"> Gov Vic 	Performance Criteria 1.2 Collect soil samples and conduct or arrange tests to establish physical and chemical condition of the soil according to workplace procedures and industry standards ... <i>Do you have to identify the turf species you are working with on the site and source material perhaps? Turf grass species are mentioned in the Knowledge Evidence but not in PCs</i>	Added reference to new Performance Criteria 1.2

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> Ind SA 	Element 1 <i>Prepare to renovate turf – need reference to calculate quantities i.e. topdressing material, fertiliser etc.</i>	New Performance Criteria 1.2 addresses this now
AHCTRF3XX Prepare sports turf surfaces for play		
<ul style="list-style-type: none"> Ind NSW 	Entire unit - <i>Well prepared</i>	No action required
<ul style="list-style-type: none"> RTO ACT 	Elements / Performance Criteria - Additional suggestion to Element 4. Undertake final preparation of playing surface: <i>Use turf surface performance measurement equipment to check on preparation result. (stimp metre, bowling green speed, clegg hammer, bounce, ball roll/smoothness, etc)</i>	Added a Performance Criteria in Element 4
	Knowledge Evidence - Suggests adding to knowledge evidence - principle and practices of turf preparation for play including: <i>Use turf surface performance measurement equipment to check on preparation result. (stimp metre, bowling green speed, clegg hammer, bounce, ball roll/smoothness, etc)</i>	Added to Knowledge Evidence
<ul style="list-style-type: none"> RTO WA 	Elements / Performance Criteria - agrees with previous comment re using turf surface performance measurement equipment to check on preparation result. He writes: <i>Agree with previous comment re- Turf surface measurement equipment parameters have been achieved according to the plan implemented from tests performed in 1.5 (From my comments)</i>	See above comment

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<p>Performance Criteria 1.5 Check and adjust profile moisture condition according to sport rules, regulations and workplace procedures - feedback:</p> <p><i>Not sure about this statement. In winter how can you adjust the soil profile moisture condition on an AFL/rugby/hockey/soccer field when you have had 30mm of rainfall just prior to the game starting or overnight?</i></p> <p><i>Best to use the comments from 143 and test surface (as part of the set-up plan) using a variety of sports turf surface playability tools e.g. clegg hammer, stimp. And look at the turf surface for density etc... according to sports rules, regulations</i></p>	<p>Removal is difficult but super soppers can remove water from the extreme upper part of the profile. Adding water on a dry surface can be achieved. So this needs to stay</p> <p>No action required</p>
<ul style="list-style-type: none"> RTO Qld 	<p>Performance Evidence - <i>“There must be evidence that the individual has prepared sports surfaces for play on at least three of the following types of sports surfaces”.</i></p> <p><i>The number of sports surfaces needs to be reconsidered (3). The practicality of apprentices from single discipline site to be able to access three different sports turf surfaces and to replicate the requirements is problematic. Even in-house RTOs may struggle with this outcome.</i></p> <p><i>Again, after talking to Local Industry practitioners Golf and Bowling green superintendents (25 in number) they all expressed issues with this requirement.</i></p> <ul style="list-style-type: none"> <i>Each site would require a workplace induction</i> <i>Supervision of the apprentice on an unfamiliar site and its work practices</i> <i>Co-ordination of timing for training and assessment, these may require multiple visits</i> <i>Insurance, work cover considerations</i> <p><i>Possible solution maybe to either rewrite to prepare sports surfaces for just a single discipline or insert the word simulated workplace surfaces.</i></p>	<p>The unit and its assessment requirements have been written with advice from SMEs from various sectors of the sports turf industry, who advised that an individual’s needs to demonstrate competency on three different sports surfaces to help to prepare the individual to work across various sectors of the industry.</p> <p>The Assessment Conditions include the following statement:</p> <p>“Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> physical conditions: <ul style="list-style-type: none"> access to a sports surface facility or an environment that accurately represents workplace conditions in which to demonstrate the preparation and layout at least 3 sports as stipulated in the performance evidence” <p>The statement on physical conditions allows for a level of simulation of the three sports surfaces, as long as the surfaces accurately represent workplace conditions and meet the remainder the requirements specified in the other headings listed in the assessment conditions.</p> <p>No action required</p>
<ul style="list-style-type: none"> RTO Qld 	<p>Unit <i>The new unit Implement sports turf surface preparation will be difficult to implement as some superintendents have issues with sending their apprentice to other sporting codes. Simulated with an emphasis on knowledge of, rather than having to implement.</i></p>	<p>Refer to the comment above</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> Gov Vic 	PC 1.4 - asking whether this should be sports surface ? <i>Identify and select equipment and resources for setting up the sport according to rules, regulations, competition and workplace procedures</i>	Added 'surface' to the Performance Criteria
	Performance Evidence - asking - <i>Should the word surface appear twice?</i>prepared a consistent and uniform sports surface playing surface according to the rules and regulations of the game and workplace procedures <ul style="list-style-type: none"> selected, checked and used marking out equipment, materials and procedures to accurately layout sports surface play surfaces according to rules and regulations of the sport and workplace procedures 	Removed additional word
	Knowledge Evidence - water and its effect on sports play, preparation activities and how to rectify including... <ul style="list-style-type: none"> water and dew removal techniques Anne wanting clarification of techniques: <i>Does that include covers over the surface to exclude rain?</i>	Expanded these points to include covers
<ul style="list-style-type: none"> Ind SA 	General - <i>Needs some reference to player safety and risk management. I.e. check irrigation equipment sprinklers and valve box for hazard, boundary clearance, ground hardness, trip hazards etc.</i>	Added an extra Performance Criteria: 4.5 Check sports turf play area for potential hazards to players and report or rectify according to workplace procedures
AHCTRF401 Develop a sports turf maintenance program		
<ul style="list-style-type: none"> Ind SA 	AHCTRF401 – Develop a Sports Turf Maintenance Program <ul style="list-style-type: none"> <i>This Unit is focussed on development of maintenance programs</i> 	No action required

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> RTO Vic 	<p>During an SME meeting it was agreed to delete AHCTRF401 & 402 due to the deletion of the existing certificate IV. However, since the meeting it has been found that this is a core unit in another qualification and has had strong enrolments. This feedback was received by Steven after proposing to retain these units:</p> <p><i>I recommend to retain the level 4 units</i></p>	AHCTRF401 and AHCTRF402 will be retained for take up in other qualifications
AHCTRF402 Plan and implement sports turf renovation		
<ul style="list-style-type: none"> RTO Vic 	<p>During an SME meeting it was agreed to delete AHCTRF401 & 402 due to the deletion of the existing certificate IV. However, since the meeting it has been found that this is a core unit in another qualification and has had strong enrolments. This feedback was received by Steven after proposing to retain these units:</p> <p><i>I recommend to retain the level 4 units</i></p>	Refer to the comment above.
AHCTRF5XX Design sand based profile for sports turf surfaces (formerly AHCTRF501 Plan the establishment of sports turf playing surfaces)		
	<p>Note: This first draft of the proposed 'new' AHCTRF5XXX Design sand based profile for sports turf surfaces was a radical redesign of the existing AHCTRF501 Plan the establishment of sports turf playing surfaces, with a new emphasis on designing sand based profiles.</p> <p>There was a great deal of feedback on this new unit from industry, RTOs and government stakeholders. After considering the feedback, it was decided to abort the proposed unit to review the existing unit AHCTRF501 with additions to capture important content from the first draft of AHCTRF5XXX.</p>	<p>AHCTRF5XXX will not to be developed further</p> <p>AHCTRF501 Plan the establishment of sports turf playing surfaces has been redesigned, and includes two new elements that have arisen from the aborted AHCTRF5XXX:</p> <ul style="list-style-type: none"> Evaluate and select sports turf profile and construction materials Develop concept design for sports turf playing surface
AHCTRF502 Manage sports turf renovation programs		
<ul style="list-style-type: none"> Ind NSW 	<p>Performance Evidence - There must also be evidence that the individual has...</p> <p><i>Assess irrigation system and practices - washing in fertilisers and pesticides</i></p>	Irrigation is not explicit in the Performance Criteria and is not the focus of the unit. However, it is recognised that moisture is important and as such has been included in the Knowledge Evidence
	<p>Knowledge Evidence - impact of climatic conditions and soil temperature on turf recovery...</p>	See above comment. Water is covered in moisture which has been included moisture in Knowledge Evidence

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<i>change to: impact of climatic conditions, soil temperature, soil water affects, on turf recovery</i>	
• RTO SA	Performance Evidence - There must be evidence that the individual has managed sports turf surfaces on at least three of... <i>has managed turf renovation on at least three of —</i>	Re-worded opening sentence for Performance Evidence
• RTO Vic	Performance Evidence - There must be evidence that the individual has managed sports turf surfaces on at least three of the following turf surfaces... <i>this requires the person to have actually managed 3 spate turf surfaces?</i> <i>this is different to drawing up a renovation program for 3 surfaces based on case studies for example.</i> <i>I read this as the student must have actually managed the renovation of 3 different surfaces which seems a very high demand for a potential student to have accomplish</i>	The opening sentence in the Performance Evidence of the has been reworded to ensure assessment is focused on preparing renovation programs
• Ind SA	Unit - General feedback - <i>Happy with this unit</i>	No action required
AHCTRF503 Develop sports turf management programs		
• Ind NSW	Application - In regard to licensing requirements: <i>Laws regarding the safe use, storage and transport of fertilisers and pesticides.</i> <i>Laws / regulations safe storage and handling of fuels</i>	Licencing is not required for this unit however, reference will need to be made to legislation which is in the Knowledge Evidence Added the following: workplace health, safety and environmental constraints on management programs including: legislative requirements storing and use of agricultural chemicals accessing, storing and using dangerous materials safety procedures and practices

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	Performance Evidence - There must also be evidence that the individual has... <i>Estimated yearly water / irrigation budget based on soil data, water availability and Evapotranspiration rates</i>	This is underpinning knowledge for the unit and has been included in the Knowledge Evidence - Volume of water, irrigation performance and water budget
	Knowledge Evidence - Sources of water supply and measures of quality including: <i>Irrigation scheduling based on Application uniformity</i>	See comment above
• RTO ACT	Unit General Feedback - <i>Overall a good unit</i>	No action required
• Ind SA	Unit General feedback – <ul style="list-style-type: none"> • <i>This Unit focusses on monitoring and managing the turf outcome.</i> • <i>Could include aspects of player safety and risk management</i> • <i>Could include aspects of usage and capacity management.</i> 	SMEs advised that this unit is about turf management and not players or scheduling play. While it is recognised that these do impact on turf wear and performance, these factors are covered where appropriate by Elements 4 and 5 that require communication with stakeholders that would provide feedback to those responsible for scheduling play. There is also the new unit AHCTRF3XX Prepare turf surfaces for play, which includes Performance Criteria 4.5 that covers safety of sports turf users.
AHCTRF504 Manage sports turf facility assets		
• Ind NSW	Knowledge Evidence - typical sports turf facility assets including: water supply and irrigation and drainage equipment <i>Irrigation uniformity and effects on water use vs availability</i>	This unit is about the physical assets being managed e.g. Irrigation components. Other units tackle the efficiencies and performance issues
• Ind WA	Unit - <i>Support this unit</i>	General comment - no action required
• RTO ACT	Unit - <i>A good unit</i>	General Comment - no action required
	Knowledge Evidence - typical sports turf facility assets including: gardens and surrounds <i>gardens, trees and surrounds</i>	Has been added to Knowledge Evidence

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
<ul style="list-style-type: none"> Ind SA 	<p>Application - <i>This unit is not very specific about what 'physical resources, infrastructure and assets' that it relates to. I suggest the Description needs to be more targeted, for instance, "physical resources, infrastructure and assets that impact directly on the sports ground playing surface, including but not limited to, goals, perimeter fence, lighting, coaches' boxes, irrigation and drainage infrastructure". Need to distinguish between infrastructure that impacts on the sports turf surface and other such as buildings, car parks, etc.</i></p>	<p>SME advice is that in small sporting clubs, all assets including club houses and car parks are usually managed by the person responsible for the turf surface. It is however recognised that in large clubs their area of responsibility is narrower and may only involve the specific assets associated with the turf surface.</p> <p>The Application statement has been changed to provide more flexibility in this unit, with by adding "under the direct responsibility of individuals managing turf playing surfaces at sporting venues and clubs."</p>

SOL - Soil

One unit was reviewed in this sector. As this is a generic horticulture unit used as a core or elective unit in other horticultural qualifications the review was conducted to ensure it remained suitable for other sectors including landscaping, parks and gardens as well as the sports turf management industry. The unit was generally well accepted with only minor changes.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHCSOL303 Implement soil improvements for garden and turf areas		
<ul style="list-style-type: none"> Ind NSW 	<p>Supported the unit.</p> <p>Suggested changes to Performance Criteria by adding Soil bulk density test and minor additions to Knowledge evidence Interpret moisture release curve</p> <p>In the KE, the chemical descriptors are different between this unit and 302 Establish turf</p>	<p>Changes made to Knowledge Evidence</p> <p>Comment noted – No Action required as these are different units with different Performance Criteria.</p>
<ul style="list-style-type: none"> RTO Qld 	<p>This is a Unit sector comment: This unit is a prerequisite for Horticulture and Landscape not just Turf</p>	<p>Incorrect unit sector was amended to Soil (SOL)</p>
<ul style="list-style-type: none"> RTO Qld 	<p>Core Unit in AHC30916 Cert III in Landscape Construction</p> <p>Collected representative soil samples for testing and package and labelled according to workplace and laboratory requirements</p>	<p>This unit is also used in other sectors parks and gardens as well as landscaping and turf.</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
	<p>Core unit for Landscape. Unit does not say samples have to be sent to laboratory.... and most landscapers wouldn't.</p> <p>Student can be assessed competent if they know how to package for laboratory.</p> <p>All testing required for unit can be conducted on site. Suggest removing reference to laboratory - it's pointless in current context.</p>	<p>Laboratory testing is required by some employers in these sectors because of the accuracy of the results.</p> <p>As this is a generic unit, reference to 'laboratory' has been retained.</p>
<ul style="list-style-type: none"> RTO Qld 	<p>Better suits the turf industry. Especially with the other turf units e.g. monitor turf health and renovate sports turf. Also having the AHCSOL 401 as an elective is a good reinforcing unit.</p> <p>Artificial Surfaces and their preparation. Why? It maybe also again problematic with locations in industry as above.</p>	<p>No action required</p> <p>This is a soils unit and as such does not include artificial turf.</p>
<ul style="list-style-type: none"> Gov Vic 	<p>Minor editing change to Application – soil samples</p>	<p>Corrected error</p>
<ul style="list-style-type: none"> Ind SA 	<p>Happy with the unit</p>	<p>No action required</p>

Summary of feedback on skill sets

Three of the four skill sets were well supported. The drainage and irrigation skill set was not well supported nor fit for purpose and has been aborted.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHCSSXXXXX Skills set for sports turf volunteer		
<ul style="list-style-type: none"> Ind NSW, Ind WA, Ind Vic, Ind SA 	<p>A good introductory skill set - may also be taken up by some schools as an intro to turf</p> <p>A good skill set for volunteers. Leave Cert II for school intro to turf."</p> <p>Excellent initiative</p> <p>"I suggest it is designed for club volunteers. Very Basic version of Cert II. But a good start for volunteers. – I support this skill set and the 3 Units.</p>	<p>Minor editing changes including the removal of 'casual workers' from the title</p>

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHCSSXXXXXX Business skills set for sports turf management		
<ul style="list-style-type: none"> Ind NSW, Ind WA, Ind Vic, Ind SA 	<p>I agree with this skill set - good work</p> <p>Good skill set. Supported</p> <p>Great initiative</p> <p>I suggest it is designed for 'supervisor roles' to call it a management role is to overstate the skill set. It is very basic. Change the description to 'supervisory roles' - I support this skill set and the 3 Units.</p>	<p>Minor change to title and description</p> <p>Added AHCWHS401 Maintain work health and safety processes to balance the outcomes</p>
AHCSSXXXXXX Technical skills set for sports turf management		
<ul style="list-style-type: none"> Ind NSW, Ind WA, Ind Vic, Ind SA 	<p>A GOOD Level Four or transitional skill set – Agree</p> <p>Support this skill set</p> <p>Excellent idea</p> <p>I suggest it is designed for operational practitioners who don't necessarily want to take on management roles. I would amend the title by removing the word 'Advanced'. It's not really that advanced. - I support this skill set and the 5 Units.</p>	<p>Minor title change to reflect industry needs.</p> <p>Substitutions of level 4 units with level 5 to provide a better articulation pathway into the redesigned Diploma, and strengthen the overall outcome of this skill set.</p> <p>Substituted AHCIRG408 Schedule irrigations with AHCIRG501 Audit irrigation systems</p> <p>Substituted AHCTRF401 Develop a sports turf maintenance program and AHCTRF402 Plan and implement sports turf renovation with AHCTRF502 Manage sports turf renovation programs</p>
<ul style="list-style-type: none"> Ind NSW 	<p>The use of pesticides is a licensing issue</p>	<p>The units selected don't require the individual to use chemicals or pesticides. As such they are not restricted from conducting the work if they don't possess licences in chemical use, and therefore, there are no Licencing requirements for this skill set</p> <p>No action required</p>
AHCSSXXXXXX Design irrigation and drainage systems for sports turf		
<ul style="list-style-type: none"> Ind NSW, Ind WA, Ind SA 	<p>Is the turf package aiming to train managers or designers this is a crap skill set particularly design irrigation systems - remember electrical considerations – delete</p> <p>Good skill set, also adds to completion of the Diploma. Supported</p>	<p>Following consideration of the feedback and further SME advice, this skills set will not be developed further by this project.</p>

Stakeholder Comments and Identified Issues	Consideration and Proposed Resolution
<p>An industry stakeholder submitted the following feedback:</p> <ul style="list-style-type: none"> • This skill set has had very little thought and should not go ahead. • The description bares little reference to the Units. It talks about skills appropriate for setting irrigation schedules, planning and implementing turf renovation and maintenance activities and managing soils and turf grass nutrition. None of these skills are covered in design irrigation or drainage systems. • Irrigation and drainage system design is a specialist field. As turf managers we use the skills of these specialists, it we want to become the irrigation design specialist you need to do the complete study to achieve this. I.e. the IAL Certified Irrigation Design Qualification, not just an add on to a diploma in turf. • As a turf manager our job is to manage the irrigation system once it has been designed. That is manage the plant water relationships, monitor the performance of the irrigation system and ensure we have sound irrigation schedules in place that meet the ever-changing plant water requirement which are dependent upon weather conditions. And the use of advanced irrigation control systems and technology. • A better skill set would be ‘Manage Irrigation Systems’ which is aimed at achieving the outcomes described in the dot point above. The Units in this skill set could include; AHCIRG502 – Design (Develop) Irrigation System Maintenance and Monitoring Programs AHCIRG501 – Audit Irrigation Systems AHCIRG408 – Schedule irrigation 	<p>Stakeholders that want to propose ideas for a specialist irrigation and drainage skill set can do put forward suggestions as part of the review of the project to the review AHCIRG and AHCDRG units that is currently in progress.</p>

Summary of feedback on components proposed for deletion

AHC40816 Certificate IV in Sports Turf Management

During the review, the SMEs advised Certificate IV in Sports Turf Management no longer met industry needs. The majority of feedback respondents supported the deletion of the AHC40816. Further investigation shows that the qualification's outcomes can be achieved by undertaking the existing AHC40416 Certificate IV in Horticulture, including the two sports turf specific units AHCTRF401 and AHCTRF402 which are listed as electives in this qualification AHC40416.

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC40816 Certificate IV in Sports Turf Management		
<ul style="list-style-type: none"> RTO NSW, 	<p>What enrolment numbers were there in Cert IV to justify its removal?</p> <p>Does not support the deletion of the qualification</p> <p>We have run the Cert IV in STM for many years as a Wednesday afternoon / evening program which suited the work hours of most STM employees in the Sydney region. We enrol into the course each semester. Our enrolments have remained at levels where the course is adequately funded through S & S. A traineeship is also available in NSW for students that progress onto Cert IV after completion of their Cert III in STM.</p>	<p>There were 48 enrolments nationally in 2017 distributed over 3 States of Australia. Training Package review projects are also required remove components that obsolete and/or duplicate the outcomes of other components.</p> <p>As stated above, access to an equivalent qualification is provided through AHC40416. Both AHC40816 and AHC40416 require 12 units to be achieved.</p> <p>All the units listed in AHC40816 (including the two turf specific units) are listed as electives in AHC40416, except for <i>AHCWRK511 Develop workplace policy and procedures for sustainability</i>. This unit can be imported under the provisions of the Packaging Rules for AHC40416.</p> <p>The project has created two new skill sets to create a post trade qualification pathway into the Diploma of Sports Turf Management:</p> <ul style="list-style-type: none"> Business skills set for sports turf management Technical skills set for sports turf management <p>Both skill sets contain units that provide credit transfer into the Diploma of Sports Turf Management.</p>
<ul style="list-style-type: none"> RTO Qld, 	<p>The total removal of this qualification, to be replaced with a skill set of 5 Level Four units. This will be more attractive to practitioners to gain extra skills. From the point of view that there has been little uptake of this qualification in the past, possibly because of the lack:</p> <ul style="list-style-type: none"> Industry recognition of qualification 	<p>This feedback supports the removal of the with a skill set to enable practitioners to gain extra skills with five level four units that was released as part of the first drafts. This next draft of this skill set (Technical skills set for sports turf management) has been strengthened and now has the following units:</p> <ul style="list-style-type: none"> AHCIRG501 Audit irrigation systems

Stakeholder Comments and Identified Issues		Consideration and Proposed Resolution
AHC40816 Certificate IV in Sports Turf Management		
	<ul style="list-style-type: none"> • Time taken to achieve qualification • Not really an obvious pathway to diploma of turf qualification. <p>If this creates more participants in further study to diploma - all for the change.</p>	<ul style="list-style-type: none"> • AHPCPM402 Develop a soil health and plant nutrition program • AHCSOL401 Sample soils and interpret results • AHCTRF502 Manage sports turf renovation programs <p>As mentioned above, level four units are still available through AHC40416 Certificate IV in Horticulture.</p>
<ul style="list-style-type: none"> • RTO Qld, RTO ACT, Ind WA, 	Support the removal of the qualification	No action required.