



Australian Government

FWPFGM6201 Plan a biochar storage system for carbon capture and storage

Release: 1

FWPFGM6201 Plan a biochar storage system for carbon capture and storage

Modification History

Release	Comment
1	Replaces superseded equivalent FPIFGM6201B Plan a bio-char storage system for carbon capture and storage, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.

Application

This unit of competency describes the outcomes required to implement a bio-char storage system at senior management or project management level in forest/farm forest, sawmilling or timber treatment settings.

The unit applies to job roles covering project, sustainability or environmental management.

No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Forest Growing and Management

Sawmilling and Processing

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Assess bio-char carbon storage system feasibility	1.1 Research bio-char carbon storage systems. 1.2 Explore organisational need for bio-char carbon storage system and investigate context of requirements through consultation.

ELEMENTS	PERFORMANCE CRITERIA
	<p>1.3 Investigate context of bio-char carbon storage system and clarify requirements with appropriate personnel.</p> <p>1.4 Identify and document user requirements and environmental parameters.</p> <p>1.5 Investigate bio-char carbon storage system options and identify installation, operation and maintenance requirements.</p> <p>1.6 Make recommendations about need for and appropriate type of system based on findings.</p>
2. Determine facility requirements	<p>2.1 Select feed stock for bio-char process and calculate amount that can be obtained for pyrolysis.</p> <p>2.2 Select method of pyrolysis based on feed stock and appropriate outputs.</p> <p>2.3 Estimate costs of transporting liquid and solid by-products.</p> <p>2.4 Assess amount of material to be processed and consider ability to feed into power grid.</p> <p>2.5 Determine process conditions.</p>
3. Design a bio-char carbon storage facility	<p>3.1 Design facility to provide optimal conditions for carbon storage.</p> <p>3.2 Identify and address legal requirements or government regulations impacting on proposed facility.</p> <p>3.3 Document design specification and communicate relevant information.</p> <p>3.4 Review overall operation and output of proposed facility for economic sustainability in line with long-term direction and purpose of organisation.</p>
4. Plan implementation of bio-char carbon storage facility	<p>4.1 Develop construction plan in line with accepted design principles.</p> <p>4.2 Evaluate internal resource abilities and determine requirement for external expertise.</p> <p>4.3 Record material, resource and supply provision requirements based on construction plan.</p> <p>4.4 Estimate labour requirements based on work plans and schedules.</p> <p>4.5 Calculate operating expense budget, indicating input and output costs applicable to proposed facility.</p>

Foundation Skills

<i>This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.</i>	
Numeracy skills to:	<ul style="list-style-type: none"> • Complete a range of highly technical and complex calculations involving input and output volumes. • Develop complex budgets for the construction of bio-char storage systems.
Oral communication skills to:	<ul style="list-style-type: none"> • Hold high-level consultative discussions to generate ideas for and negotiate requirements for bio-char storage systems.
Reading skills to:	<ul style="list-style-type: none"> • Interpret complex information in a range of internal and external source documents to evaluate and establish bio-char storage system feasibility.
Writing skills to:	<ul style="list-style-type: none"> • Document complex information on feasibility of constructing bio-char systems including detailed recommendations. • Document complex data in design specifications and construction plans.
Technology skills to:	<ul style="list-style-type: none"> • Assess, design and implement a bio-char storage systems

Unit Mapping Information

FPIFGM6201B Plan a biochar storage system for carbon capture and storage

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>