



Project Plan

Cascade Peak Chalets Landscaping Project

Sam Ng

Awesome Landscapes

Version 1 – 28 May 2016

Document Management

Distribution List

The project plan must be distributed to all members of the project steering committee.

Name	Position	Signature	Date
Susan Wills	Program Manager – Massive Eco-Development Corporation	<i>Susan Wills</i>	28 May 2016
Robert Hinson	Project Manager – Massive Eco-Development Corporation	<i>R. Hinson</i>	28 May 2016
Stephen Lyons	Planning Manager - Cascade Peak Shire Council	<i>S. Lyons</i>	28 May 2016
Kate Chan	Project Manager - Timber Home Construction Ltd	<i>Kate Chan</i>	28 May 2016
Kim Nguyen	Director – Awesome Landscapes Pty Ltd	<i>Kim Nguyen</i>	28 May 2016
Sam Ng	Project Manager – Awesome Landscapes Pty Ltd	<i>Sam Ng</i>	28 May 2016

Version Control

Revision #	Change Description	Approval Date	Author
1	Initial release	28 May 2016	Sam Ng.

Project Registration

Project Name	Cascade Peak Chalets Landscaping Project
Project #	28
Creation Date	28 May 2016
Sponsor/Client	Massive Eco-Development Corporation
Project Manager	Sam Ng, Awesome Landscapes

Executive Summary

Rationale

Increased tourism in the Cascade Peak region has resulted in the need for a resort to be constructed on the mountain. Although the mountain is very popular with climbers during summer and popular with skiers during winter, the nearest accommodation is over two hours' drive away.

The project will work hand in hand with a construction project to create the landscaping and excavation services for an ecologically friendly resort on the lower slopes of Cascade Peak.

Business Background

Massive Eco-Development Corporation

Massive Eco-Development Corporation commenced business eight years ago building eco lodges in ecologically sensitive areas of strong tourism demand throughout the country. They construct the eco lodges before selling them off to large tour operators to accommodate tourists.

Having successfully established fifteen eco resorts they are now expanding their business to include the development of eco-resorts. This is a huge expansion of the development of eco-lodges, but they have recently partnered with Timber Home Construction Ltd following the successful construction of a large resort on the coast and a timber hotel within Cascade Peak town.

This will be the first eco-resort development under this partnership, and following the successful completion of this project, Massive Eco-Development Corporation will develop more eco-resorts around the country.

Awesome Landscapes Pty Ltd

Awesome Landscapes Pty Ltd was established twelve years ago to provide landscaping solutions in large scale commercial and residential developments. Throughout the lifetime of the project they have worked closely with several specialist subcontracting companies to provide a full range of landscaping services.

Major projects Awesome Landscapes have managed and successfully delivered in recent years include:

- Construction of landscaping and car parking for the Cascade Peak Shopping Centre.
- Landscaping for the Nevva Inn complex.
- Landscaping and carpark construction for Cascade Peak Retirement Village.



- Landscaping, Swimming Pool construction, and Playground Construction for the Cascade Peak Water Park.
- Landscaping for the Cascade Peak Ski Field.
- Boardwalk construction for the Black Tarns Wetlands Nature Walk.

Additionally Awesome Landscapes is responsible for the following landscape maintenance work:

- Maintaining all walking trails on Cascade Peak.
- Maintaining all Council owned parks in Cascade Peak Town.
- Maintaining all garden beds in the Cascade Peak Shopping Centre.

Awesome Landscapes' Vision Statement:

- To make the Cascade Peak region ecologically friendly through practical landscaping solutions using local native vegetation and landscaping that blend in well with the natural setting.

Awesome Landscapes' Mission Statement:

- To be an AWESOME leader in the field of large scale landscaping development.
- To deliver AWESOME results on time and to budget.
- To have an AWESOME environmental friendliness, where possible using native plant selections suited to the local climate to minimize ongoing maintenance.
- To have AWESOME working relationships with all clients and subcontractors.

Key Objectives

The key objectives of this project are to:

1. Prepare the site for construction of the log cabin chalets. This includes excavating and laying access roads and the creation of retaining walls to stabilize the soil around the construction areas.
2. Excavate all the channels for the underground utility services, including electricity, water and sewerage/septic system.
3. Mitigate for any erosion or subsidence during the construction of the chalets, and to construct additional landscaping where needed.
4. Diversion of a local stream to provide cascading channels running through the resort in between the chalets.
5. Complete the planting and landscaping to ensure the resort blends in perfectly with the natural forest.
6. Ensure the forest flora and fauna is minimally impacted by the construction project.

Benefits

The benefits of this project include:

During the project:

- Employment for the local contractors and suppliers. Currently there are no other landscape development projects occurring in Cascade Peak, so they have to keep their staff and contractors employed through their maintenance contracts.

After completion of the project:

- Ongoing employment for local people required to service the chalets. This will include resort staff, bus drivers, and grounds maintenance staff.
- Investment opportunities for a hotel chain.
- Expanded use of the ski run, providing additional business and employment in the area.
- Tourists will be able to stay on the mountain for skiing in the winter and hiking in the summer.
- Potentially more work for Awesome Landscapes in partnership with Massive Eco-Development Corporation as they construct more eco resorts around the country.

Organisational Impacts

The project will impact the business in the following ways:

Resources assigned to tasks will be required to travel to the site from the town. There is private accommodation provided by the Cascade Peak National Park in the form of a fully serviced hut about a kilometre away from the site of the resort. Staff members working on the project may stay at the hut during the week to save long commutes from Cascade Peak town.

The hut is already made available to Awesome Landscaping as part of their contract with maintaining the trails in the national park. The national park has been generous in providing extra access to the hut to support the project at no additional cost.

There will be five landscapers and the landscaping site supervisor based in the hut at all times. The site supervisor and four of the landscapers will be working on the landscaping project as a top priority. When they are not working on the landscaping project they will work in maintaining the national park tracks.

With this arrangement the impact on Awesome Landscapes Pty Ltd will be a lot less than would normally be the case in a remote working environment.

Otherwise as this project is a core function of the business, there aren't any impacts on the business.

Authorisation

Recommendation

The recommendation is this project plan is approved as the information within it is compatible with the approved application submitted to Cascade Peak Shire Council as per the conditions of the Council approval.

Approval

☒ Approved
 ☐ Postponed
 ☐ Cancelled
 ☐ Review

Sign off

The project plan only becomes valid once signed off by the following members of the project steering committee.

Name	Position	Signature	Date
Susan Wills	Program Manager – Massive Eco-Development Corporation	<i>Susan Wills</i>	28 May 2016
Stephen Lyons	Planning Manager - Cascade Peak Shire Council	<i>S. Lyons</i>	28 May 2016
Kate Chan	Project Manager - Timber Home Construction Ltd	<i>Kate Phan</i>	28 May 2016
Kim Nguyen	Director – Awesome Landscapes Pty Ltd	<i>Kim Nguyen</i>	28 May 2016
Sam Ng	Project Manager – Awesome Landscapes Pty Ltd	<i>Sam Ng</i>	28 May 2016

Contents

Document Management	1
Distribution List	1
Version Control	1
Project Registration	2
Executive Summary	3
Rationale	3
Business Background	3
Massive Eco-Development Corporation	3
Awesome Landscapes Pty Ltd	3
Key Objectives	4
Benefits	5
Organisational Impacts	5
Authorisation	6
Recommendation	6
Approval	6
Sign off	6
Contents	7
Project Information	10
1. Integration Management Plan	10
1.1. Methodology	10
1.2. Project Dependencies	10
1.3. Change Control	11
1.4. Auditing	11
1.4. Performance Reporting	12
1.5. Project Closure	12
2. Scope Management Plan	15
2.1. Deliverables	15

2.2. Inclusions.....	15
2.3. Exclusions.....	17
2.4. Handover.....	19
3. Time Management Plan	20
3.1. Schedule.....	20
3.2. Milestones.....	21
4. Cost Management Plan	22
4.1. Budget	22
4.2. Estimating methodology	22
4.3. Confidence level.....	22
4.4. Contingency	23
4.5. Source of Funds.....	23
4.6. Cash Flow	24
5. Quality Management Plan	25
5.1. Overview of Quality Requirements.....	25
5.2. Cascade Peak Shire Council Regulations.....	25
5.3. Building Regulations.....	25
5.4. Operation of Equipment	26
5.5. Quality Assurance	26
5.6. Quality Control	26
6. Human Resource Management Plan	29
6.1. Stakeholders.....	29
6.2. Resource Capability.....	29
7. Communications Management Plan.....	30
7.1. Organisational Structure	30
7.2. Escalation	30
8. Risk Management Plan.....	31
8.1. Constraints	31
8.2. Assumptions.....	31
8.3. Potential Issues	31
8.4. Risk	31
9. Procurement Management Plan.....	32



9.1. Procurement Planning and Solicitation Planning.....	32
9.2. Contract Administration.....	32
9.3. Contract Close-out	32
Appendices	33

Project Information

1. Integration Management Plan

1.1. Methodology

This project will be managed using PMBOK methodology, as will the related chalet construction project. The PMBOK methodology will ensure all aspects of project management are covered:

- **Scope** – What the project will deliver.
- **Time** – When the deliverables will be delivered.
- **Cost** – The project budget and cash flow.
- **Quality** – Ensuring all Council building and environmental conditions and regulations are met.
- **Human Resources** – The staff involved in the delivery and management of the project.
- **Communications** – Ensuring all stakeholders are informed of requirements, progress and issues.
- **Risk** – Ensuring the project risks are managed.
- **Procurement** – The project contracts with subcontractors and suppliers.
- **Integration** – Integrating the other project aspects.

1.2. Project Dependencies

This project is closely dependent on the Cascade Peak Chalets Building Project. That project covers:

1. The logging and fabrication of the logs for the log cabins.
2. Transporting all logs and other building materials on site.
3. Building the chalets.
4. Installing the utilities (although the landscaping project will be responsible for the excavations).
5. Decorating and furnishing the chalets.

This project is also closely dependent on the marketing of the resort to tour companies. The developer wishes to retain ownership of the resort, and they are not well known in tourism circles. Therefore a separate project to commence during the middle of the build will focus on branding the resort, erecting signage, promoting to the local and international tour companies, etc.

The project sponsor has requested the three projects remain separate as each will have their own project manager who will be required to collaborate with the other project managers (though the marketing company will not need to liaise with the landscaping company).

1.3. Change Control

The change control process will adhere to the following procedure. This procedure ensures appropriate stakeholders approve any changes, and all stakeholders are equally informed of changes to the initial project plan:

1. All suggestions for changes to the project scope, time, cost, quality, human resources, communications, risk, procurement and integration will be sent to the project manager (Awesome Landscaping) who will populate the information into a change request. The change request template provided with this project plan must be used.
2. The details going into the change request will be negotiated between the project manager (Awesome Landscaping) and the program manager (Massive Eco-Development).
3. The draft change request will go to the planning manager of Cascade Peak Shire Council who will advise if a new Council approval is needed as part of the proposed changes.
4. If a Council approval is needed, the program manager (Massive Eco-Development) will commence the application process as needed.
5. Once Council approvals have been granted, the matters within the change request will be modified within the project plan, and other project documentation as required.
6. The project plan must include all change requests (template provided in Appendix 38), along with an up to date change register (Appendix 37).
7. The changes in the project documentation must be clearly colour coded by highlighted text as below. All omitted text must be formatted with strikethrough to show it has been deleted, and must be highlighted with the colour relevant to the version.
 - a. Change request 1 – Yellow highlighting.
 - b. Change request 2 – Green highlighting
 - c. Change request 3 – Blue highlighting
 - d. Change request 5 – Pink highlighting
8. The change request and all modified documentation is examined at a face to face meeting by Susan Wills (Program Manager – Massive Eco-Development Corporation), Stephen Lyons (Planning Manager - Cascade Peak Shire Council), Kate Chan (Project Manager - Timber Home Construction Ltd), Kim Nguyen (Director – Awesome Landscapes Pty Ltd), Sam Ng, Project Manager – Awesome Landscapes Pty Ltd and any other stakeholders directly impacted on the change request.
9. The change request is signed off by Susan Wills (Program Manager – Massive Eco-Development Corporation), Stephen Lyons (Planning Manager - Cascade Peak Shire Council), and Kim Nguyen (Director – Awesome Landscapes Pty Ltd).
10. The changes are communicated and implemented by the project manager (Awesome).

1.4. Auditing

All work will be regularly audited by Council building inspectors. In order to foresee any issues, the project manager and project assistant of Awesome will conduct regular quality audits on the work

completed. It is expected Council will come on site at the beginning of each month. Internal audits will therefore be conducted during the middle of each month.

The audit report template in Appendix 36 will be used for all internal and external auditing. The report template will need to be complete.

The outcomes of all internal and external audits are to be included in the status reports, and as appendices at the back of updates to the project plan.

Details of the auditing process are in the quality plan.

1.4. Performance Reporting

To ensure the steering committee is kept informed of the progress of the project, reports need to be created by the project manager.

- Performance reporting will occur immediately after a change request has been signed. If three months elapse following a change request or previous report, another report needs to be created.
- The report must use the standard template provided in Appendix 39 of the project plan.
- The project plan must be updated with a new version released showing the status report, and the Gantt chart (and any other relevant documentation) updated to the date of the report in the project plan.
- A lessons learnt evaluation session must also be conducted at the end of the project. To assist with the process, a lessons learnt documentation template has been provided in Appendix 41.
- A final report must be completed at the end of the project when all stages have been complete. The template for this report is in Appendix 42.
- All reports are to be signed off by the project sponsor before being distributed to all members of the project steering committee.

1.5. Project Closure

Upon completion of phase 3, the project closure needs to commence as per the following procedure:

1. Payment of Remaining Invoices

All invoices that have not yet been paid to suppliers and contractors are settled prior to the preparation of project closure documentation.

2. Project Closure Meeting Documentation

A project completion report must be completed, showing the results of the project, lessons learnt, and an audit report.

The project plan is to be updated with an additional change control version incorporated. The project plan must include the following:

1. The version control table must indicate this is the final version at completion.
2. The project Gantt chart must indicate the project has been completed.
3. Lessons learnt documentation must be included in the project plan.
4. All issues in the issues register have either been closed or documented in the project closure report.
5. A copy of the project completion report must be included.
6. A final audit report on the project, and particularly its costs must be included.

The project archives checklist must be complete.

The formal acceptance and closure must be complete to be signed off at the project closure meeting.

3. Pre-meeting Audit

The above documentation is evaluated by an independent project auditor prior to the final project meeting.

4. Final Project Meeting

All project steering committee members are to attend the final project meeting.

Each member will be provided with a copy of the project documentation, which includes:

- Project completion report.
- Final version of the project plan.
- Project archives checklist.
- Formal acceptance and closure.

The meeting commences with confirmation of the accuracy of the report and updated project plan.

All the lessons learnt documentation is then reviewed with lessons applicable to future projects noted by the committee.

The completion report, project plan and formal acceptance and closure must all be signed off by the signatories of the project steering committee. The template used for the formal acceptance and closure is provided in Appendix 43.

Each steering committee member takes their copy of the project completion documentation for their own archiving.

5. Final Project Invoice

Having successfully delivered the final project documentation, Awesome Landscapes may raise an invoice to Massive Eco-development Corporation for the final contract payment.



6. Project Archival

Upon payment of the final contract payment by Massive Eco-development Corporation, all project documentation may be archived.

The project archive checklist found in Appendix 44 must be printed off and checked off as each piece of project documentation is archived in both hard and electronic copy. The hard copy documentation (charter, plan, reports, change requests, etc.) must be scanned into the network.

The hard copy files must be filed in the archiving compactors at Awesome Landscaping Pty Ltd.

The electronic files must be stored in the archival hard drive (Q:/) under a separate folder clearly identifying the project name and date of archiving.

2. Scope Management Plan

2.1. Deliverables

The deliverables for the project include:

Phase 1 – Pre-building

- Removal of vegetation in areas being cleared and replanting/maintaining the plants for replanting in stage 3.
- Access roads through the existing forest for builders to access each building site.
- Retaining walls to provide stability around the buildings.

Phase 2 – Building Support

- Monitoring the building site for erosion, subsidence or other environmental issues.
- Excavation for incoming utilities (electric cable, water supply, etc.).
- Excavation of sewerage and septic system.
- Maintaining the plants removed in stage 1.

Phase 3 – Planting and Landscaping

- Diversion of stream and creation of water channels through resort in between the chalets.
- Conversion of most access roads into landscaped walking paths.
- Erection of signage around resort.
- Detailed landscaping around chalets and paths.
- Planting of native plants removed in stage 1 plus additional native plants back into landscaped areas to blend in with forest.

2.2. Inclusions

The project inclusions for each deliverable include:

Stage 1 – Pre-building

- Removal of vegetation in areas being cleared and replanting/maintaining the plants for replanting in stage 3.
 - Supply and delivery of all vegetation removal equipment and tools.
 - Supply and erection of covered building to store and grow native plants collected from areas being cleared.
 - Irrigation, potting and chemicals for maintenance of plants.
 - Separation and disposal of weeds from native plants.
 - Ensuring the ongoing health of large plants and trees left in the ground.
- Access roads through the existing forest for builders to access each building site.

- Supply and delivery of all excavation equipment and vehicles.
 - Removal of soil and storage in designated location on site for use for landscaping.
 - Supply and laying of road gravel along temporary access roads.
 - Building an unsealed car park at the front entrance.
- Retaining walls to provide stability around the buildings.
 - Supply and delivery of granite boulders and all other raw materials used for retaining walls.
 - Construction of retaining walls.
 - Insertion of soil into retaining wall areas from excavations.
 - Compacting of soil behind retaining walls as required for foundation work.

Stage 2 – Building Support

- Monitoring the building site for erosion, subsidence or other environmental issues.
 - Managing any erosion or subsidence in the land where chalets are being built.
 - Maintaining the road access to the chalets.
 - Monitoring trees and other vegetation not removed.
- Excavation for incoming utilities (electric cable, water supply, etc.).
 - Digging channels as per plans and installer requirements.
 - Filling in and compacting channels once utilities installed.
 - Ensuring surface infrastructure for utilities remain clear and uncovered.
- Excavation of sewerage and septic system.
 - Excavation of holes for septic tanks.
 - Excavation of channels for sewerage pipes.
 - Filling in and compacting channels and holes once sewerage and septic system has been installed.
 - Ensuring surface infrastructure for sewerage and septic systems remain clear and uncovered.
- Maintaining the plants removed in stage 1.
 - Supply of all chemicals and equipment needed to maintain the plants.
 - All maintenance of the green houses.
 - Maintenance of all plants.
 - Removing weeds and pests as required.

Stage 3 – Planting and Landscaping

- Diversion of stream and creation of water channels through resort in between the chalets.
 - Construction of stream channels as per plan.
 - Supply and delivery of granite boulders for landscaping and ground stability around the stream channels.
 - Excavation of channels diverting water from main stream.
 - Construction of weir system used to divert water.

- Construction of drainage system to return water to main stream downstream from chalets.
 - Testing and troubleshooting.
- Conversion of most access roads into landscaped walking paths.
 - Expansion of car park along main road.
 - Removal of access road gravel and laying over car park.
 - Sealing of car park over gravel.
 - Restoration of soil around old access roads.
 - Construction of stone paved walking paths between chalets as per plan.
 - Compacting and ensuring no erosion or subsidence risk.
- Erection of signage around resort.
 - Erecting signs provided by marketing project.
 - Concreting and additional landscaping around signs.
- Detailed landscaping around chalets and paths.
 - Soil surface preparation.
 - Additional boulders placed in landscaping.
 - Removal of all weeds in resort.
- Planting of native plants removed in stage 1 plus additional native plants back into landscaped areas to blend in with forest.
 - Planting of all healthy native plants removed in stage 1.
 - Purchasing and delivery of additional native plants to fill the gaps.
 - Planting additional plants.

2.3. Exclusions

The project exclusions for each deliverable include:

Stage 1 – Pre-building

- Removal of vegetation in areas being cleared and replanting/maintaining the plants for replanting in stage 3.
 - Sourcing and maintenance of any additional native plants to be planted at the end of the project.
 - Removal of trees (these will remain in the ground, and buildings will be erected around them).
 - Planting of new trees.
- Access roads through the existing forest for builders to access each building site.
 - Sealing of roads or car park.
 - Maintenance of main road up the mountain to the resort property.
 - Construction of any foot paths.
 - Construction of any bridges, culverts.

- Construction of any electrical services (e.g. street lighting, power access to chalet sites, etc.).
- Retaining walls to provide stability around the buildings.
 - Construction of foundations.
 - Planting around retaining walls.

Stage 2 – Building Support

- Monitoring the building site for erosion, subsidence or other environmental issues.
 - Monitoring and maintaining partially and fully constructed buildings.
 - Monitoring and maintaining the main road.
 - Creation of additional retaining walls.
 - Onsite security (this is provided by the chalet development project).
 - Any building, decorating or furnishing of the chalets.
- Excavation for incoming utilities (electric cable, water supply, etc.).
 - Installation of utilities.
 - Installation of service points at either road or chalet end.
 - Provision or delivery of utility raw materials or installation equipment.
 - Testing of the utilities (this will be done by the building contractors when the cables and pipes have been laid, but before they are buried.
 - Weather damage.
- Excavation of sewerage and septic system.
 - Installation of pipes and tanks.
 - Construction of septic system buildings or other infrastructure.
 - Provision or delivery of pipes and tanks.
- Maintaining the plants removed in stage 1.
 - Purchase and maintenance of additional native plants to replace any that had perished.
 - Removal of additional plants or weeds from the building sites.

Stage 3 – Planting and Landscaping

- Diversion of stream and creation of water channels through resort in between the chalets.
 - Nil
- Conversion of most access roads into landscaped walking paths.
 - Construction of any roads within the resort.
 - Construction of any hand rails (this will be done by builders in the chalet development project once we have finished developing the paths.
- Erection of signage around resort.
 - Sign design or sign writing.
- Detailed landscaping around chalets and paths.
 - Any pot plants to go around or inside chalets.
 - Development of any ongoing maintenance plan.

- Planting of native plants removed in stage 1 plus additional native plants back into landscaped areas to blend in with forest.
 - Purchase, delivery of planting of any exotic species.
 - Development of any plant maintenance plan.

2.4. Handover

The final handover to the client (Susan Wills from Massive Eco-Development Corporation) is to occur upon completion of stage 3.

The project will be signed off as complete only when:

1. The client is satisfied all deliverables have been completed and delivered to the required quality.
2. Stephen Lyons from Cascade Peak Shire Council has conducted the final inspection of the constructed resort and has advised he is happy to sign off on it as per Council approval.
3. The client has settled all outstanding contract payments.
4. A completion report has been written, and provided with an updated version of the project plan showing all project activities have been complete.
5. The project plan and other relevant documentation have been examined by an external auditor to ensure all project due diligence is complete.

The formal handover will be at a meeting where the final project report, finalised project plan and the final handover form has been signed off by Susan Wills (Massive Eco-Development Corporation, Kim Nguyen(Awesome Landscapes) and Stephen Lyons (Cascade Peak Shire Council).

3. Time Management Plan

3.1. Schedule

The schedule of this project needs to primarily work around the construction of the chalets.

A summary of the schedule at each phase of the project appears below. For further detail, refer to the following appendices:

- Appendix 1: WBS
- Appendix 2: Gantt Chart
- Appendix 3 : Network Diagram
- Appendix 4: Effort and Duration of Tasks
- Appendix 5: Task Dependency Worksheet

Phase 1: Pre-building

The project commences on Friday 3 August 2016.

The pre-building phase will need to be complete prior to the commencement of the construction of the buildings. The completion of this phase will be on Friday 21 September.

This phase will occur during late winter to early spring, which is the best time of the year to be removing the native vegetation and temporarily planting it in the large greenhouses.

Phase 2: Building support

The building of the chalets will occur from Monday 24 September until Friday 19 December with the commencement of the summer break. The site needs to be maintained during this time, and through to the commencement of the decorating and furnishing of the chalets which starts on 7 January 2017.

This phase will therefore run from Monday 24 September 2016 to Friday 4 January 2017.

Phase 3: Planting and landscaping

This will coincide with the decorating and furnishing of the chalets.

This phase will run from Monday 7 January 2017 to Monday 11 March 2017.

The project schedule has been broken down by task and has been attached as a WBS, Gantt chart and network diagram in Attachments 1, 2 and 3 respectively.

The Gantt chart is supported by the duration of tasks table and task dependency worksheets provided in Appendices 4 and 5.

3.2. Milestones

The key milestones of this project include.

Phase1 – Pre-building

- Removal of vegetation by 30 August.
- Temporary access roads constructed to chalet sites by 29 August.
- Chalet retaining walls built by 24 September.
- Site will be ready for commencement of chalet construction to start on 24 September.

Phase 2 – Building support

- Incoming utilities will be installed for all chalets by 20 November.
- Sewerage and septic system will be installed from all chalets by 20 December.
- All chalets will be completely constructed before the start of the summer break on 21 December.

Phase 3 – Planting and Landscaping

- Decorating and furnishing of the chalets will commence on 7 January following the end of the summer break. Landscaping will commence on the same day.
- The streams running past the chalets will be complete and fully functional by 13 February.
- The temporary access roads will be removed and replaced with access boardwalk paths by 6 February.
- All signage in the resort will be erected by 12 February.
- The resort will be fully landscaped ready for planting on 25 February.
- Planting will be complete by 11 March and the resort will be ready for final marketing and release.

4. Cost Management Plan

4.1. Budget

The following table provides a summary of the cost of each phase of the project:

Phase	Labour	Procurement	Purchase	Total
1. Pre-building.	\$58,438	\$37,550	\$133,880	\$229,868
2. Building Support	\$38,391	\$32,000	\$2,000	\$71,891
3. Planting and Landscaping	\$88,114	\$34,400	\$20,250	\$142,494
TOTAL	\$184,943	\$103,950	\$155,630	\$444,253

Details of the project budget calculations are provided in Appendices 6 and 7.

4.2. Estimating methodology

The estimating methodology for this project budget is covered in Appendix 7. The methodology used to calculate the figures are as follows:

Staff costs (Awesome Landscaping) –The hourly rate has been calculated based on the staff member’s hourly wage or salary. This figure is multiplied by 1.3 to cover leave entitlements and staff administration costs.

All procurement and expenditure costs are as per quoted figures in provided quotes. The tender request documentation broke down the items of work as per the tasks in the Gantt chart. Suppliers were required to quote for each task to assist with the budgeting process.

4.3. Confidence level

Provided there are no scope or time variations in the project, the budget in this project plan has a high level of confidence.

Each staff member working for Awesome Landscapes have their wages and salaries reviewed at the end of each financial year. Therefore there won’t be any changes to the labour rates of pay.

The procurement values have been signed off on a fixed cost basis as per contracts with the suppliers. Unless there are changes to project scope, there won’t therefore be any changes to the procurement costs.

The purchase costs may increase as quotes were obtained at the time of the project plan. These costs may vary due to the long delay between the preparation of the project plan and the purchasing of the project raw materials and equipment.

4.4. Contingency

Massive Eco-development Corporation is paying a fixed sum of \$550,000. The project budget as per this project plan is \$444,253.

This leaves a surplus or contingency of \$105,747 to absorb any extra costs the project will incur.

Awesome Landscapes has enough reserve cash to cope with the potential to expend up to \$224,724 prior to the initial project payment being cleared in the bank. See Appendix 8.

There are no additional contingency funds available for this project.

4.5. Source of Funds

As per project contract between Awesome Landscaping and Massive Eco-development, the funds of \$550,000 + GST will be paid for all landscaping work done in this project. This is a fixed price contract, so the funds provided will be the same regardless of any project extensions, variations in scope, or increases in cost of labour, procurement or purchases. The funds will be paid by Massive Eco-Development Corporation at the following points in the project:

- Payment 1: 50% initial payment at the commencement of phase 1.
- Payment 2: 20% progress payment upon completion of all phase 1 deliverables and delivery of project progress report.
- Payment 3: 20% progress payment upon completion of all phase 2 deliverables and delivery of project progress report.
- Payment 4: 10% final payment upon completion of all phase 3 deliverables and delivery of the project final report.

As per contract with Massive Eco-Development Corporation, and as per Awesome Landscaping's invoicing cycle, Awesome Landscaping will raise an invoice on the first working day of the month following the due date of each progress payment.

The terms of all invoices are 28 days. All cash flow calculations are based on the funds being paid on the final day of the terms of the invoices.

The payments will be as follows:

Expected payment date:	Payment	Proportion	Amount (pre-GST)	Amount (GST incl.)
1 October 2016	Payment 1	50%	\$275,000	\$302,500
29 October 2016	Payment 2	20%	\$110,000	\$121,000
1 March 2017	Payment 3	20%	\$110,000	\$121,000
29 April 2017	Payment 4	10%	\$55,000	\$60,500
	TOTAL	100%	\$550,000	\$605,000

4.6. Cash Flow

The project expenditure cash flow chart and S curve have been provided in Appendix 8.

The methodology used to calculate the project cash flow is as follows:

Labour – All employees of Awesome Landscapes are paid on a fortnightly basis at the end of the week. The labour costs for each stage have been calculated by determining the number of weeks (or partial weeks thereof) of the duration of the stage. The total labour cost is then divided by the number of calculated weeks for the stage. Then the sums are collated by fortnight. This provides a reasonable estimate of the labour costs incurred each fortnight based on the tasks the project team is performing in each week of the project.

Procurement – As per contracts with suppliers, all contractor payments will be made on the final week of each stage of the project they are performing project tasks in. Payment to be made immediately upon completion of the work done for the stage.

Purchases – All purchases have been calculated to occur during the first week of each stage of the project.

The S curve has been constructed from the results of the above calculations.

The project cashflow has been calculated from the S curve calculations above. These figures are subtracted from the cumulative income the project will receive from its four progress payments from Massive Eco-development Corporation, on the dates when they are expected to be paid based on the invoicing cycle determined above.

5. Quality Management Plan

5.1. Overview of Quality Requirements

There are a number of sources of quality requirements for this project. These include:

- Cascade Peak Shire Council Regulations.
- General Building Regulations.
- Licenses for Operation of Equipment.

5.2. Cascade Peak Shire Council Regulations

The primary benchmark for the quality management plan will be through the building and development regulations imposed by the Cascade Peak Shire Council. In particular, the development will be occurring in an environmentally sensitive area near national park. This requires a far stricter standard of building.

The construction and landscaping of the resort must be as per the Council approved plan. Council requires detailed plans of the site landscaping along with a full copy of the project charter and project plan. The approval will be granted subject to the condition that any changes to the project must be carefully documented as per the change management procedure which includes authorisation by Council.

So far as the landscaping is concerned, the following Council regulations apply:

- The preservation of removed vegetation.
- Erosion control and soil stability.
- Standards for human waste management in environmentally sensitive areas.
- Landscaping and plant selection on properties adjacent to national parks.
- Noxious weeds regulation.
- Diversion of waterways.

These standards along with which tasks they apply to are detailed in Appendices 9 and 10.

5.3. Building Regulations

So far as the landscaping work covered within the scope of this project is concerned, the following building regulations apply:

- Construction of structural retaining walls.
- Standards for underground services and utilities.

Additional standards apply to the construction of the proposed chalets, but as this is outside the scope of this project, these standards are not covered in this project plan.

5.4. Operation of Equipment

All contractors operating equipment must be appropriately qualified/certified as follows:

- Construction induction card. All personnel working on, or otherwise accessing the site must be the holder of an appropriate construction induction card.
- Bobcat operator ticket.
- Excavator license.
- Landscaper qualifications. As work will be conducted in an environmentally sensitive area, all landscapers are required to hold appropriate qualifications in landscaping or horticulture. They must also hold a national park landscaper permit (obtained by attending a short course by Council).

5.5. Quality Assurance

The project integration processes will be audited on a monthly basis.

Most quality assurance will be conducted by the site supervisor as the landscaping work progresses. Any issues will be reported to the project manager.

5.6. Quality Control

Council will be sending an auditor to inspect the construction on a monthly basis. All inspection and auditing fees are covered by the related construction project. However some of the auditing will apply to the landscaping work.

Prior to the Council audits, an internal audit will be conducted on the completed landscaping work at the end of each stage. This will be conducted by the project manager as part of their allocated project management duties.

QA Audits conducted by the Project Manager

- Task 6 - Disposal of weeds.
- Task 7 – Maintenance of remaining plants/trees.
- Task 10 – Removal and storage of soil.
- Task 20 – Erosion management.
- Task 21 – Road maintenance.
- Task 22 – Tree maintenance.
- Task 33 – Maintenance of plants.
- Task 34 – Maintenance of green houses.
- Task 35 – Removal and disposal of weeds.
- Task 43 – Troubleshooting methodology.

QC Audits conducted by the Project Manager

- Task 4 - Erect glasshouse.
- Task 5 - Install irrigation, chemicals, etc.
- Task 9 – Delivery of landscaping equipment and vehicles.
- Task 10 – Removal and storage of soil.
- Task 11 – Delivery of road gravel
- Task 12 – Installation of road gravel to building sites.
- Task 13 – Construction of temporary car park.
- Task 15 – Delivery of granite boulders.
- Task 16 – Construction of retaining walls.
- Task 17 – Level sites ready for chalet construction.
- Task 25 – Filling and compacting of channels.
- Task 26 – Access to inbound utilities service points.
- Task 30 – Filling and compacting of channels.
- Task 31 – Access to sewerage service points.
- Task 38 – Construction of channels.
- Task 39 – Installation of granite boulders.
- Task 40 – Excavation of main channel from stream.
- Task 41 – Construction of weir.
- Task 42 – Construct drainage at bottom.
- Task 43 – Water flow through channels.
- Task 45 – Expansion of car park.
- Task 46 – Clearing of temporary roads from around resort.
- Task 47 – Finished car park.
- Task 48 – Landscaping over old access roads.
- Task 49 – Construction of stone paving walkways to chalets.
- Task 51 – Erection of signage.
- Task 52 – Landscaping around signage.
- Task 54 – Soil preparation.
- Task 55 – Boulders landscaped around chalets.
- Task 56 – Removal of weeds.
- Task 58 – Plants planted from greenhouse.
- Task 59 – Species of plants purchased.
- Task 60 – Completion of all planting.
- Task 61 – Clearing of all equipment and waste.

Audits conducted by Council

- Task 4 – Erect glasshouse.
- Task 6 – Disposal of weeds.
- Task 7 – Maintenance of remaining plants/trees.
- Task 12 – Installation of road gravel to building sites.
- Task 13 – Temporary car park.



- Task 16 – Construction of retaining walls.
- Task 52 – Access and signage to chalets.
- Task 55 – Construction of water channel system.
- Task 61 – Final evaluation of landscaping on site, including the removal of equipment and waste.

6. Human Resource Management Plan

6.1. Stakeholders

The stakeholder requirements are covered in the stakeholder analysis template in Appendix 16.

These primarily consist of stakeholders from the following organisations:

- Massive Eco-development Corporation – the project sponsor.
- Awesome Landscapes Pty Ltd – The project management and landscaping organization.
- Timber Home Construction Pty Ltd – The organisation responsible for constructing the chalets.
- Cascade Peak Shire Council – The regulator.
- J.P. Digging Pty Ltd – The digging and heavy earthmoving contractor.
- Earthmoving Logistics Pty Ltd – The transport and glasshouse construction organisation.

6.2. Resource Capability

This project is deemed high priority, so all landscapers and other staff used in the project will perform duties for this project around any other projects or operational work they may have. The resource capability is covered in appendices 13, 14, 15, 17 and 18.

7. Communications Management Plan

7.1. Organisational Structure

Awesome Landscapes Pty Ltd operates as a service provider and has two project managers. Appendix 11 contains the formal organisation structure of Awesome Landscapes. The informal organisation structure for this project is covered in Appendix 12.

The organisation structure for the project also includes the subcontracting companies.

7.2. Escalation

The agreed procedures in place for handling conflict includes:

All issues with project team members and contractors are to be initially dealt with by the project manager.

The project manager will report these issues to the director during their weekly meetings. Any serious issues will be escalated to the director for resolution.

Issues regarding Massive Eco-development Corporation, Timber Home Construction Pty Ltd or any of its staff or subcontractors need to be escalated directly to the director of Awesome Landscaping who will negotiate the issue with the program manager of Massive Eco-development Corporation.

Any Council compliance issues regarding the Awesome Landscaping subcontractors (J.P. Digging Pty Ltd and Earthmoving Logistics Pty Ltd) or Massive Eco-Development Corporation or their other contractors that cannot be resolved by the director of Awesome Landscaping will be referred to the planning manager of Cascade Peak Shire Council.

A communications plan and communication requirements analysis are included in Appendices 20 and 21.

The responsibility matrix has been supplied in Appendix 13.

8. Risk Management Plan

8.1. Constraints

The natural environment must be carefully preserved as per the strict Council requirements for environmentally sensitive areas.

Other conditions imposed by Council.

The landscaping work must work around the building construction.

Fixed budget of \$550,000 + GST.

Completion of all work within nine months.

8.2. Assumptions

The landscaping and resort construction plans have been approved by Council.

All raw materials and plants will be available when needed at the costs quoted in the project plan.

The construction of the chalets will go to schedule.

8.3. Potential Issues

Adverse weather conditions (heavy rain, snow, wind) delaying the project.

Adverse weather conditions (rain or heavy snow) creating erosion in the build area.

Delays with delivery of raw materials for the project, or for the construction project.

Construction equipment breaking down.

These issues have been populated into the issues register in Appendix 19.

8.4. Risk

A risk management has also been developed (see Appendices 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31) for the primary identified risks to the project.

9. Procurement Management Plan

9.1. Procurement Planning and Solicitation Planning

Contracts have been produced for the subcontractors. There has been no contractor selection process for this project as both subcontractors have a strong working relationship as preferred suppliers to Awesome Landscapes Pty Ltd.

Statements of work for the two contractors have been provided in Appendices 32 and 33

Should any further contractors, or replacement contractors, be required for the project, a procurement management planning checklist template and a work authorisation form template have been provided in appendices 34 and 35 respectively.

9.2. Contract Administration

All contract administration will be conducted by the project administrator, reporting to the project manager. The project administrator is responsible for:

- Ensuring deliverables are being met (comparing audit reports with contract schedules).
- Advising the project manager and the payroll officer of invoices to pay.

9.3. Contract Close-out

At the end of the contract with each subcontractor, the project administrator completes all project due diligence and advises the project manager when this is complete.

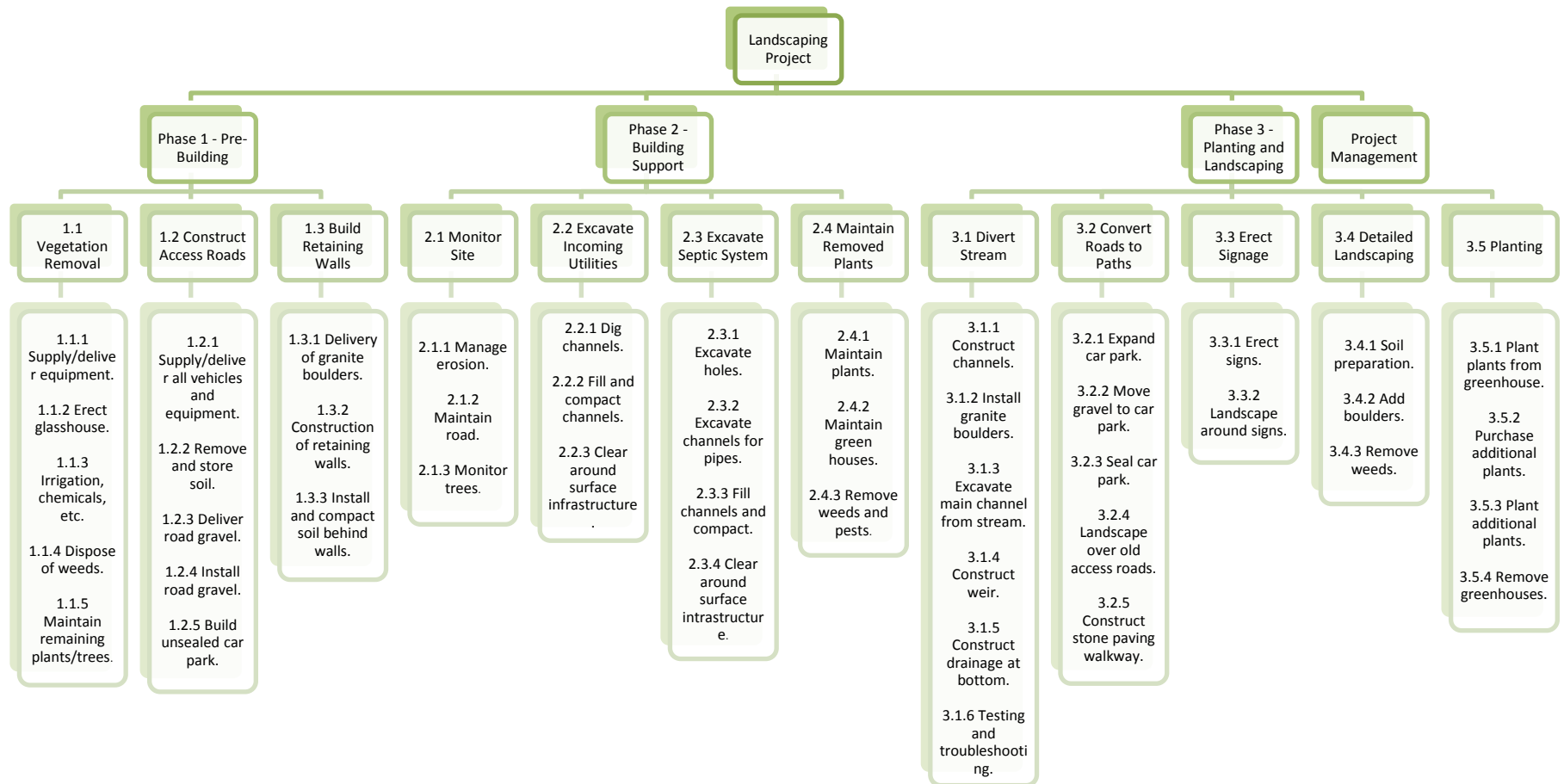
The Work Results Guidelines template found in Appendix 40 must be complete during the contract close-out.

Appendices

Appendix 1 - WBS.....	35
Appendix 2 – Gantt Chart – Provided as a separate attachment	36
Appendix 3 – Network Diagram – Provided as a separate attachment.....	37
Appendix 4 - Effort and Duration of Tasks.....	38
Appendix 5 - Task Dependency Worksheet	42
Appendix 6 - Summary Costing per Phase	47
Appendix 7 - Detailed Costing per Task	48
Appendix 8 - Project Cashflow	53
Appendix 9 - Quality Analysis Tool.....	57
Appendix 10 - Quality Plan.....	62
Appendix 11 – Organisation Chart – Awesome Landscapes.....	69
Appendix 12 – Organisation Chart – Cascade Peaks Chalets Project	70
Appendix 13 - Responsibility Assignment Matrix Template	71
Appendix 14 - Staffing Management Plan	72
Appendix 15 - Resource Requirements Worksheet.....	74
Appendix 16 - Stakeholder Analysis Template.....	79
Appendix 17 - Resource Pool Description Template	81
Appendix 18 - Detailed Resource Allocation.....	82
Appendix 19 - Issues Register Template	89
Appendix 20 - Communications Plan Template.....	90
Appendix 21 - Communication Requirements Analysis Worksheet	92
Appendix 22 - Risk Management Plan Template	93
Appendix 23 - Risk Identification – SWOT Analysis.....	95
Appendix 24 - Rating Impacts for a Risk	97
Appendix 25 - Risk Rating Table.....	98
Appendix 26 - Risk Brainstorming Session Worksheet	100
Appendix 27 - Project Risk Categorisation Worksheet	104
Appendix 28 - Project Risk Prioritisation Worksheet.....	105

Appendix 29 - Risk Response Plan	109
Appendix 30 - Workaround Planning Worksheet Template	111
Appendix 31 - Project Risk Review Matrix Template	112
Appendix 32 - Statement of Work – J.P Digging	114
Appendix 33 - Statement of Work – Earthmoving Logistics	118
Appendix 34 - Procurement Management Planning Checklist Template.....	120
Appendix 35 - Work Authorisation Form Template.....	121
Appendix 36 - Quality Audit Template.....	122
Appendix 37 - Change Register	124
Appendix 38 - Project Change Request Template	125
Appendix 39 - Project Status Report Template	127
Appendix 40 - Work Results Guidelines.....	129
Appendix 41 - Lessons Learned Documentation Template	131
Appendix 42 - Project Completion Report Template.....	132
Appendix 43 - Formal Acceptance and Closure Template.....	137
Appendix 44 - Project Archives Checklist Template	138

Appendix 1 - WBS





Appendix 2 – Gantt Chart – Provided as a separate attachment



Appendix 3 – Network Diagram – Provided as a separate attachment

Appendix 4 - Effort and Duration of Tasks

Task number	Task Description	Task Effort (hours)				Task Duration (days)			
		To	Tp	Tm	Te	To	Tp	Tm	Te
1	PHASE 1 – PRE-BUILDING								
2	Stage 1.1 – Vegetation Removal								
3	Supply/deliver equipment	10	20	15	15	2	4	3	3
4	Erect glasshouse	8	20	14	14	1	3	2	3
5	Install irrigation, chemicals, etc.	12	20	16	16	2	5	2	4
6	Move plants to glasshouse and dispose of weeds	35	45	40	40	4	6	5	5
7	Maintain remaining plants/trees	35	45	40	40	4	6	5	5
8	Stage 1.2 – Construct Access Roads								
9	Supply/deliver all vehicles and equipment	8	40	16	19	2	6	2	4
10	Remove and store soil	70	90	80	80	8	12	10	10
11	Deliver road gravel	8	20	14	14	1	3	2	2
12	Install road gravel	16	48	30	31	2	6	4	4
13	Build unsealed car park	8	24	15	15	1	3	2	2
14	Stage 1.3 – Build Retaining Walls								
15	Delivery of granite boulders	12	20	16	16	3	8	4	5
16	Construction of retaining walls	80	160	120	120	10	20	15	15
17	Install and compact soil behind walls	80	160	120	120	10	20	15	15
18	Phase 1 Project Management								
19	Project Management (40 hours per week)				288				36
20	Project support staff (40 hours per week)				288				36
21	Project meetings				20				36
22	PHASE 2 – BUILDING SUPPORT								

Task number	Task Description	Task Effort (hours)				Task Duration (days)			
		To	Tp	Tm	Te	To	Tp	Tm	Te
23	Stage 2.1 – Monitor Site								
24	Manage erosion	30	200	75	88	75	75	75	75
25	Maintain road	60	100	75	77	75	75	75	75
26	Monitor trees	60	200	150	143	75	75	75	75
27	Stage 2.2 – Excavate Incoming Utilities								
28	Dig channels	96	144	120	120	12	18	15	15
29	Fill and compact channels	96	144	120	120	12	18	15	15
30	Clear around surface infrastructure	96	144	120	120	12	18	15	15
31	Stage 2.3 – Excavate Septic System								
32	Excavate holes	64	96	80	80	8	12	10	10
33	Excavate channels for pipes	64	96	80	80	8	12	10	10
34	Fill channels and compact	64	96	80	80	8	12	10	10
35	Clear around surface infrastructure	64	96	80	80	8	12	10	10
36	Stage 2.4 – Maintain Removed Plants								
37	Maintain plants	120	200	150	153	75	75	75	75
38	Maintain green houses	60	90	75	75	75	75	75	75
39	Remove weeds and pests	120	180	150	150	75	75	75	75
40	Phase 2 Project Management								
41	Project management (10 hours per week)	120	180	150	150	75	75	75	75
42	Project support staff (10 hours per week)	120	180	150	150	75	75	75	75
43	Project meetings	8	12	10	10	75	75	75	75
44	PHASE 3 – PLANTING AND LANDSCAPING								
45	Stage 3.1 – Divert Stream								
46	Construct channels	25	55	40	40	3	7	5	5

Task number	Task Description	Task Effort (hours)				Task Duration (days)			
		To	Tp	Tm	Te	To	Tp	Tm	Te
47	Install granite boulders	32	48	40	40	4	6	5	5
48	Excavate main channel from stream	16	32	20	22	2	4	3	3
49	Construct weir	20	60	40	40	3	8	5	5
50	Construct drainage at bottom	32	48	40	40	4	6	5	5
51	Testing and troubleshooting	8	80	20	28	1	10	3	4
52	Stage 3.2 – Convert Roads to Paths								
53	Expand car park	8	28	20	20	1	5	2	3
54	Move gravel to car park	12	32	20	21	2	4	3	3
55	Seal car park	4	16	8	9	1	3	2	2
56	Landscape over old access roads	32	48	40	40	4	6	5	5
57	Construct stone paving walkway	32	100	60	62	4	13	8	8
58	Stage 3.3 – Erect Signage								
59	Erect signs	4	16	8	9	1	2	2	2
60	Landscape around signs	8	20	12	13	1	3	2	2
61	Stage 3.4 – Detailed Landscaping								
62	Soil preparation	8	40	20	22	1	5	2	3
63	Add boulders	20	60	40	40	3	8	5	5
64	Remove weeds	20	60	40	40	3	8	5	5
65	Stage 3.5 – Planting								
66	Plant plants from greenhouses	16	36	20	22	2	5	3	3
67	Purchase additional plants	8	40	20	22	1	5	3	3
68	Plant additional plants	12	40	20	22	2	5	3	3
69	Remove greenhouses	4	12	8	8	1	3	2	2
70	Phase 3 Project Management								



Task number	Task Description	Task Effort (hours)				Task Duration (days)			
		To	Tp	Tm	Te	To	Tp	Tm	Te
71	Project Management (40 hours per week)				344				45
72	Project support staff (40 hours per week)				344				45
73	Project meetings				25				45
	TOTAL EFFORT				4085				1156

Appendix 5 - Task Dependency Worksheet

Task number	Task Description	Duration (days)	Predecessors (list task numbers)					Constraints	
			FS	SS	FF	SF	Lag	Type	Date
1	PHASE 1 – PRE-BUILDING								
2	Stage 1.1 – Vegetation Removal								
3	Supply/deliver equipment	3	Start					Commence at start of project.	3/08
4	Erect glasshouse	3	3						
5	Install irrigation, chemicals, etc.	4	4						
6	Move plants to glasshouse and dispose of weeds	5	5				-1		
7	Maintain remaining plants/trees	5	6						
8	Stage 1.2 – Construct Access Roads								
9	Supply/deliver all vehicles and equipment	4		3					
10	Remove and store soil	10	9						
11	Deliver road gravel	2	9						
12	Install road gravel	4	10,11						
13	Build unsealed car park	2	10,11						
14	Stage 1.3 – Build Retaining Walls								
15	Delivery of granite boulders	5	13						
16	Construction of retaining walls	15	15					Must finish before construction of buildings commences.	21/09

Task number	Task Description	Duration (days)	Predecessors (list task numbers)					Constraints	
			FS	SS	FF	SF	Lag	Type	Date
17	Install and compact soil behind walls	15	15				5	Must finish before construction of buildings commences.	21/09
18	Phase 1 Project Management								
19	Project Management	36		3				Must finish before construction of buildings commences.	21/09
20	Project support staff	36		19					
21	Project meetings	36		19					
22	PHASE 2 – BUILDING SUPPORT								
23	Stage 2.1 – Monitor Site								
24	Manage erosion	75	7,17					Must commence on the same day construction of buildings commences.	24/09
25	Maintain road	75		24					
26	Monitor trees	75		24					
27	Stage 2.2 – Excavate Incoming Utilities								
28	Dig channels	15	7,17				20		
29	Fill and compact channels	15		28			5		
30	Clear around surface infrastructure	15		29			1		
31	Stage 2.3 – Excavate Septic System								
32	Excavate holes	10	29						
33	Excavate channels for pipes	10	32						
34	Fill channels and compact	10	32				2		

Task number	Task Description	Duration (days)	Predecessors (list task numbers)					Constraints	
			FS	SS	FF	SF	Lag	Type	Date
35	Clear around surface infrastructure	10		33,34			1	Must conclude on or before last day of chalet construction.	19/12
36	Stage 2.4 – Maintain Removed Plants								
37	Maintain plants	75	7, 17					Must commence on the same day construction of buildings commences and must conclude on the day before decorating and furnishing commences.	21/09 4/01
38	Maintain green houses	75		37					
39	Remove weeds and pests	75		37					
40	Phase 2 Project Management								
41	Project Management	75	19					Must commence on the same day construction of buildings commences and must conclude on the day before decorating and furnishing commences.	21/09 4/01
42	Project support staff	75	20						
43	Project meetings	75	21						
44	PHASE 3 – PLANTING AND LANDSCAPING								
45	Stage 3.1 – Divert Stream								
46	Construct channels	10	41					Must commence no earlier than day interior decoration of buildings commences.	7/01
47	Install granite boulders	10	46						
48	Excavate main channel from stream	6	47						

Task number	Task Description	Duration (days)	Predecessors (list task numbers)					Constraints	
			FS	SS	FF	SF	Lag	Type	Date
49	Construct weir	10	48						
50	Construct drainage at bottom	10	49						
51	Testing and troubleshooting	7	50						
52	Stage 3.2 – Convert Roads to Paths								
53	Expand car park	5	41					Must commence no earlier than day interior decoration of buildings commences.	7/01
54	Move gravel to car park	6	53						
55	Seal car park	3	54						
56	Landscape over old access roads	10	55						
57	Construct stone paving walkway	16	56						
58	Stage 3.3 – Erect Signage								
59	Erect signs	3	57						
60	Landscape around signs	4	59						
61	Stage 3.4 – Detailed Landscaping								
62	Soil preparation	6	57						
63	Add boulders	10	62						
64	Remove weeds	10	63						
65	Stage 3.5 – Planting								
66	Plant plants from greenhouses	6	64						
67	Purchase additional plants	6	66						

Task number	Task Description	Duration (days)	Predecessors (list task numbers)					Constraints	
			FS	SS	FF	SF	Lag	Type	Date
68	Plant additional plants	6	67						
69	Remove greenhouses	2	68						
70	Phase 3 Project Management								
71	Project Management	86	41					Must run for entire duration of this phase.	7/01 11/03
72	Project support staff	86	42						
73	Project meetings	86	43						

Predecessors:

FS = Finish to start – This task commences following the end of the listed tasks.

SS = Start to start – This task starts at the same time as the listed tasks.

FF = Finish to finish – This task finishes at the same time as the listed tasks.

SF – Start to finish – This task finishes at the same time the listed tasks commence.

Lag = number of days between tasks.

Constraint types:

As soon as possible – Finish the task as soon as possible based on the constraints of predecessors. This is the most common selection.

As late as possible – Finish this task as late as possible based on the constraints of later activities.

Finish no earlier than – Finish as soon as possible, but no earlier than the specified date.

Finish no later than – Finish as soon as possible, but not later than the specified date.

Must finish on – Task finishes on the specified date.

Must start on – Task commences on the specified date.

Start no earlier than – Task commences on or after the specified date.

Start no later than – Task commences on or before the specified date.

Appendix 6 - Summary Costing per Phase

Project Phase Description	Labour cost		Procurement cost	Purchase cost	TOTAL COST
	Time	Cost			
PHASE 1 – PRE-BUILDING	1,509	\$58,438	\$37,550	\$133,880	\$229,868
Stage 1.1 – Vegetation Removal	189	\$6,248	\$2,100	\$42,000	\$50,348
Stage 1.2 – Construct Access Roads	120	\$4,150	\$13,950	\$77,380	\$95,480
Stage 1.3 – Build Retaining Walls	604	\$20,320	\$21,500	\$13,500	\$55,320
Phase 1 Project Management	596	\$27,720	\$0	\$1,000	\$28,720
PHASE 2 – BUILDING SUPPORT	1,017	\$38,391	\$32,000	\$2,000	\$71,891
Stage 2.1 – Monitor Site	107	\$3,424	\$0	\$0	\$3,424
Stage 2.2 – Excavate Incoming Utilities	240	\$7,968	\$16,000	\$0	\$23,968
Stage 2.3 – Excavate Septic System	216	\$8,000	\$16,000	\$0	\$24,000
Stage 2.4 – Maintain Removed Plants	144	\$4,599	\$0	\$1,000	\$5,599
Phase 2 Project Management	310	\$14,400	\$0	\$1,000	\$14,900
PHASE 3 – PLANTING AND LANDSCAPING	2,339	\$88,114	\$34,400	\$20,250	\$142,494
Stage 3.1 – Divert Stream	241	\$8,552	\$20,400	\$4,000	\$32,682
Stage 3.2 – Convert Roads to Paths	566	\$18,720	\$7,500	\$5,000	\$31,220
Stage 3.3 – Erect Signage	27	\$880	\$0	\$0	\$880
Stage 3.4 – Detailed Landscaping	510	\$17,136	\$4,000	\$0	\$21,136
Stage 3.5 – Planting	282	\$9,616	\$2,500	\$10,000	\$22,116
Phase 3 Project Management	713	\$33,210	\$0	\$1,250	\$34,460
TOTAL	4865	\$184,943	\$103,950	\$156,130	\$444,253

Appendix 7 - Detailed Costing per Task

Task number	Task Description	Time			Hrly rate	Labour Cost	Procurement		Purchases		TOTAL COST
		Te	Who?	#			Description	Cost	Description	Cost	
1	PHASE 1 – PRE-BUILDING										\$229,868
2	Stage 1.1 – Vegetation Removal										\$50,348
3	Supply/deliver equipment	15	SS	0.5	40/h	\$300	E.L.	\$1,200	Glasshouse, landscaping equipment.	\$42,000	\$43,500
4	Erect glasshouse	14	SS LS	0.25 2	40/h 32/h	\$140 \$896	E.L.	\$900			\$1,936
5	Install irrigation, chemicals, etc.	16	SS LS	0.25 1	40/h 32/h	\$160 \$512					\$672
6	Move plants to glasshouse and dispose of weeds	40	SS LS	0.25 2	40/h 32/h	\$400 \$2,560					\$2,960
7	Maintain remaining plants/trees	40	LS	1	32/h	\$1,280					\$1,280
8	Stage 1.2 – Construct Access Roads										\$95,480
9	Supply/deliver all vehicles and equipment	19	SS	0.25	40/h	\$190	E.L.	\$2,700	Hire cost of equipment (pd up front)	\$51,380	\$54,270
10	Remove and store soil	80	SS LS	0.25 1	40/h 32/h	\$800 \$2,560	J.P.D.	\$5,350			\$8,710
11	Deliver road gravel	14	SS	0.25	40/h	\$140	E.L.	\$2,000	Road gravel.	\$26,000	\$28,140
12	Install road gravel	31	SS	0.25	40/h	\$310	J.P.D.	\$2,100			\$2,410
13	Build unsealed car park	15	SS	0.25	40/h	\$150	J.P.D.	\$1,800			\$1,950
14	Stage 1.3 – Build Retaining Walls										\$55,320
15	Delivery of granite boulders	16	SS	0.25	40/h	\$160	E.L.	\$3,800	Boulders	\$13,500	\$17,460

Task number	Task Description	Time			Hrly rate	Labour Cost	Procurement		Purchases		TOTAL COST
		Te	Who?	#			Description	Cost	Description	Cost	
16	Construction of retaining walls	120	SS LS	0.5 2	40/h 32/h	\$2,400 \$7,680	J.P.D.	\$11,500			\$21,580
17	Install and compact soil behind walls	120	SS LS	0.5 2	40/h 32/h	\$2,400 \$7,680	J.P.D.	\$6,200			\$16,280
18	Phase 1 Project Management										\$28,720
19	Project Management	288	PM	1	60/h	\$17,280					\$17,280
20	Project support staff	288	PA	1	30/h	\$8,640					\$8,640
21	Project meetings	20	D	1	90/h	\$1,800			Meeting room hire and catering	\$1,000	\$2,800
22	PHASE 2 – BUILDING SUPPORT										\$71,891
23	Stage 2.1 – Monitor Site										\$3,424
24	Manage erosion	88	LS	0.3	32/h	\$845					\$845
25	Maintain road	77	LS	0.3	32/h	\$739					\$739
26	Monitor trees	143	LS	0.4	32/h	\$1,840					\$1,840
27	Stage 2.2 – Excavate Incoming Utilities										\$23,968
28	Dig channels	120	SS	0.4	32/h	\$1,536	J.P.D.	\$8,000			\$9,536
29	Fill and compact channels	120	SS	0.3	32/h	\$1,152	J.P.D.	\$8,000			\$9,152
30	Clear around surface infrastructure	120	SS LS	0.3 1	40/h 32/h	\$1,440 \$3,840					\$5,280
31	Stage 2.3 – Excavate Septic System										\$24,000
32	Excavate holes	80	SS	0.7	40/h	\$2,240	J.P.D.	\$6,000			\$8,240
33	Excavate channels for pipes	80	SS	0.5	40/h	\$1,600	J.P.D.	\$5,000			\$6,600
34	Fill channels and compact	80	SS	0.35	40/h	\$1,120	J.P.D.	\$5,000			\$6,120

Task number	Task Description	Time			Hrly rate	Labour Cost	Procurement		Purchases		TOTAL COST
		Te	Who?	#			Description	Cost	Description	Cost	
35	Clear around surface infrastructure	80	SS LS	0.15 1	40/h 32/h	\$480 \$2,560					\$3,040
36	Stage 2.4 – Maintain Removed Plants										\$5,599
37	Maintain plants	153	LS	0.4	32/h	\$1,959			Plant consumables.	\$1,000	\$2,959
38	Maintain green houses	75	LS	0.1	32/h	\$240					\$240
39	Remove weeds and pests	150	LS	0.5	32/h	\$2,400					\$2,400
40	Phase 2 Project Management										\$14,900
41	Project Management	150	PM	1	60/h	\$9,000					\$9,000
42	Project support staff	150	PA	1	30/h	\$4,500					\$4,500
43	Project meetings	10	D	1	90/h	\$900			Meeting room hire and catering	\$500	\$1,400
44	PHASE 3 – PLANTING AND LANDSCAPING										\$142,494
45	Stage 3.1 – Divert Stream										\$32,682
46	Construct channels	40	SS LS	0.5 2	40/h	\$800 \$2,560	J.P.D.	\$3,500			\$6,860
47	Install granite boulders	40	SS	0.5	40/h	\$800	J.P.D.	\$3,300			\$4,100
48	Excavate main channel from stream	22	SS	0.5	40/h	\$440	J.P.D.	\$2,000			\$2,440
49	Construct weir	40	SS	0.5	40/h	\$800	J.P.D.	\$5,600	Cement mix (from construction project)	\$4,000	\$10,400
50	Construct drainage at bottom	40	SS	0.5	40/h	\$800	J.P.D.	\$3,500			\$4,300
51	Testing and troubleshooting	28	SS LS	0.5 2	40/h 32/h	\$560 \$1,792	J.P.D.	\$2,500			\$4,582

Task number	Task Description	Time			Hrly rate	Labour Cost	Procurement		Purchases		TOTAL COST
		Te	Who?	#			Description	Cost	Description	Cost	
52	Stage 3.2 – Convert Roads to Paths										\$31,220
53	Expand car park	20	SS LS	0.5 2	40/h 32/h	\$400 \$1,280	J.P.D.	\$3,000			\$4,680
54	Move gravel to car park	21	SS LS	0.5 2	40/h 32/h	\$420 \$1,344	J.P.D.	\$3,000			\$4764
55	Seal car park	9	SS	0.5	40/h	\$180	J.P.D.	\$1,500	Sealing bitumen	\$5,000	\$6,680
56	Landscape over old access roads	40	SS LS	0.5 4	40/h 32/h	\$800 \$5,120					\$5,920
57	Construct stone paving walkway	62	SS LS	0.5 4	40/h 32/h	\$1,240 \$7,936					\$9,176
58	Stage 3.3 – Erect Signage										\$880
59	Erect signs	9	SS LS	0.2 1	40/h 32/h	\$72 \$288					\$360
60	Landscape around signs	13	SS LS	0.2 1	40/h 32/h	\$104 \$416					\$520
61	Stage 3.4 – Detailed Landscaping										\$21,136
62	Soil preparation	22	SS LS	1 4	40/h 32/h	\$880 \$2,816					\$3,696
63	Add boulders	40	SS LS	1 4	40/h 32/h	\$1,600 \$5,120	J.P.D.	\$4,000			\$10,720
64	Remove weeds	40	SS LS	1 4	40/h 32/h	\$1,600 \$5,120					\$6,720
65	Stage 3.5 – Planting										\$22,116
66	Plant plants from greenhouses	22	SS LS	1 4	40/h 32/h	\$880 \$2,816					\$3,696
67	Purchase additional plants	22	SS	1	40/h	\$880			Plants	\$10,000	\$10,880

Task number	Task Description	Time			Hrly rate	Labour Cost	Procurement		Purchases		TOTAL COST
		Te	Who?	#			Description	Cost	Description	Cost	
68	Plant additional plants	22	SS LS	1 4	40/h 32/h	\$880 \$2,816					\$3,696
69	Remove greenhouses	8	SS LS	1 4	40/h 32/h	\$320 \$1,024	E.L.	\$2,500			\$3,844
70	Phase 3 Project Management										\$34,460
71	Project Management	344	PM	1	60/h	\$20,640					\$20,640
72	Project support staff	344	PA	1	30/h	\$10,320					\$10,320
73	Project meetings	25	D	1	90/h	\$2,250				\$1,250	\$3,500
	TOTAL					\$184,943		\$103,950		\$156,130	\$444,253

Key of resources:

D = Director

PM = project manager

PA = Project administrator

SS = Site supervisor

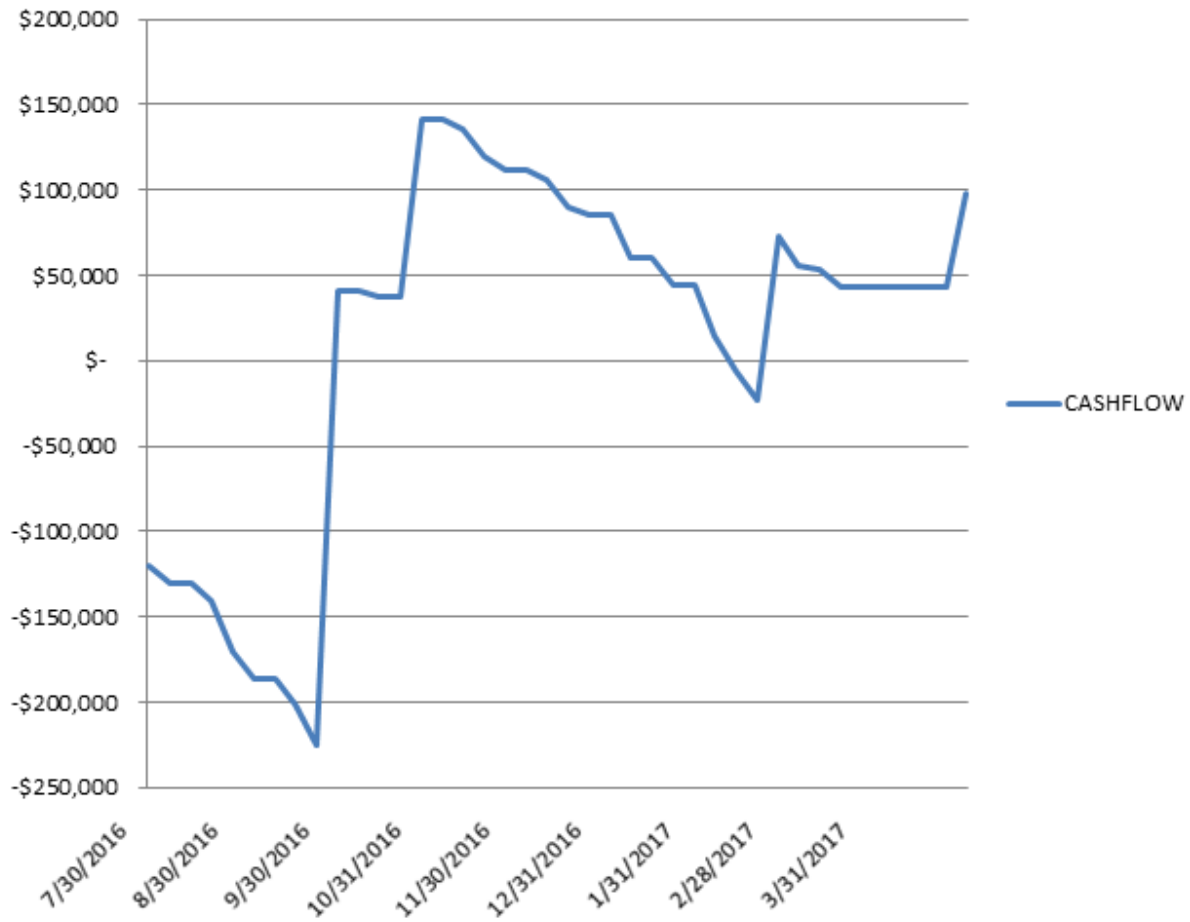
LS = Landscaper

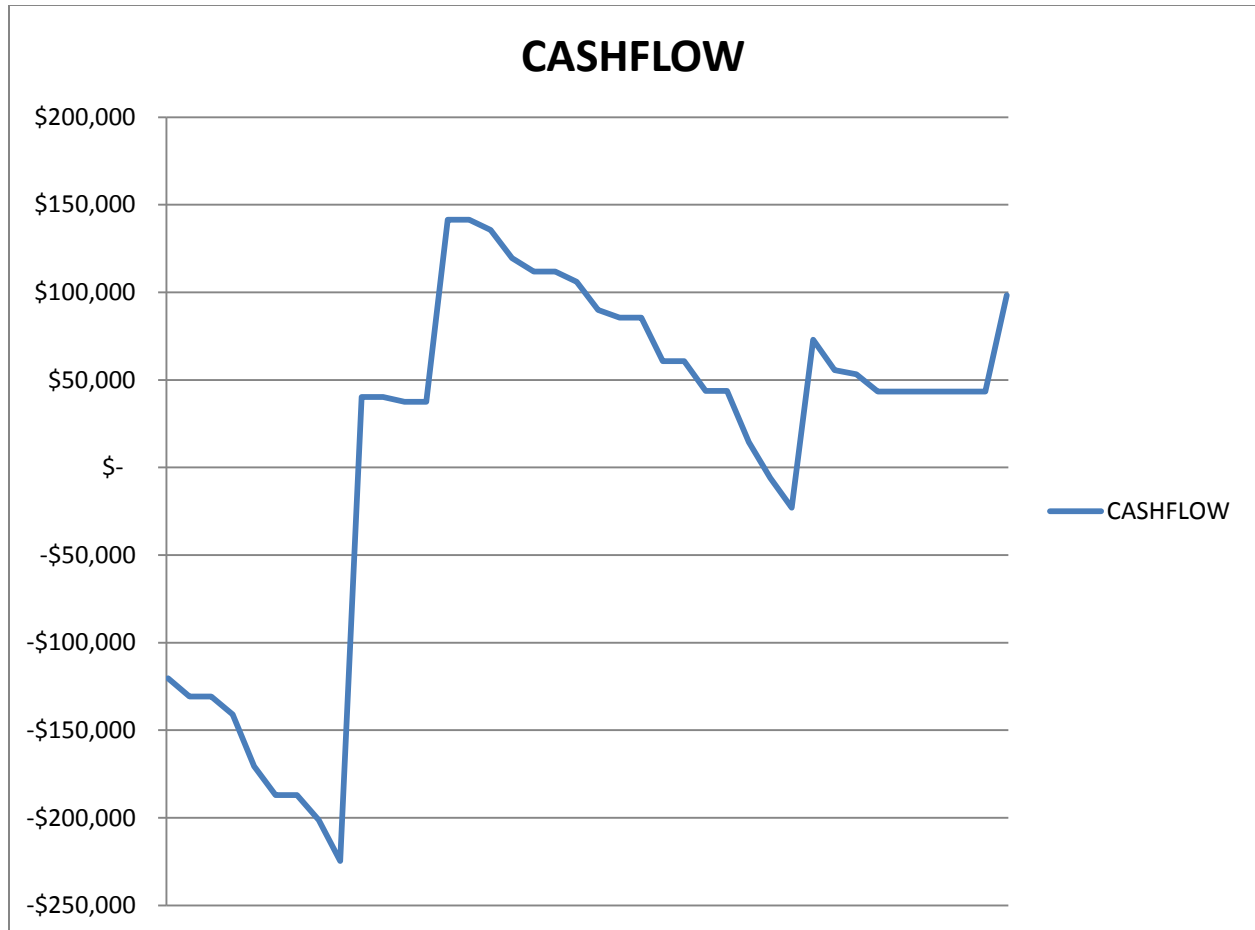
Appendix 8 - Project Cashflow

Week Beginning	Weekly Cashflow	Cumulative Expenses
30/07/2016	\$120,380	\$120,380
6/08/2016	\$10,318	\$130,698
13/08/2016	\$0	\$130,698
20/08/2016	\$10,318	\$141,016
27/08/2016	\$29,550	\$170,566
3/09/2016	\$16,370	\$186,936
10/09/2016	\$0	\$186,936
17/09/2016	\$14,288	\$201,224
24/09/2016	\$23,500	\$224,724
1/10/2016	\$9,947	\$234,671
8/10/2016	\$0	\$234,671
15/10/2016	\$2,803	\$237,474
22/10/2016	\$0	\$237,474
29/10/2016	\$5,989	\$243,463
5/11/2016	\$0	\$243,463
12/11/2016	\$5,989	\$249,452
19/11/2016	\$16,000	\$265,452
26/11/2016	\$7,599	\$273,051
3/12/2016	\$0	\$273,051
10/12/2016	\$6,003	\$279,054
17/12/2016	\$16,000	\$295,054
24/12/2016	\$4,403	\$299,457
31/12/2016	\$0	\$299,457
7/01/2017	\$24,863	\$324,320
14/01/2017	\$0	\$324,320
21/01/2017	\$16,981	\$341,301
28/01/2017	\$0	\$341,301
4/02/2017	\$29,204	\$370,505
11/02/2017	\$20,400	\$390,905
18/02/2017	\$17,076	\$407,981
25/02/2017	\$14,000	\$421,981
4/03/2017	\$17,336	\$439,317

Week Beginning	Weekly Cashflow	Cumulative Expenses
11/03/2017	\$2,500	\$441,817
18/03/2017	\$9,848	\$451,665
25/03/2017	\$0	\$451,665
1/04/2017	\$0	\$451,665
8/04/2017	\$0	\$451,665
15/04/2017	\$0	\$451,665
22/04/2017	\$0	\$451,665
29/04/2017	\$0	\$451,665

CASHFLOW





Appendix 9 - Quality Analysis Tool

Task (From Gantt chart)	People Standard	Process Standard	Product/Service Standard	PM Standard	Strategy (Action Plan)
3. Supply/deliver equipment	Truck licence.	N/A	Landscaping equipment specification.	PMBOK	Site supervisor to ensure goods arrive in good condition.
4. Erect glasshouse	Horticulture qualification/skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document. Temporary landscape plan.	PMBOK	Site supervisor to ensure it is located and erected as per plan and procedure. PM to conduct QC audit. Council to QC audit.
5. Install irrigation, chemicals, etc.	Horticulture qualification/skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document. Temporary landscape plan.	PMBOK	Site supervisor to ensure it is all installed and stored as per plan and procedure. PM to conduct QC audit.
6. Dispose of weeds	Horticulture qualification/skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure disposal is as per procedure. PM to conduct QA audit. Council to QC audit.
7. Maintain remaining plants/trees	Horticulture qualification/skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QA audit. Council to QA audit.
9. Supply/deliver all vehicles and equipment.	Truck licence.	N/A	Landscaping equipment specification.	PMBOK	Site supervisor to ensure goods arrive in good condition. PM to conduct QC audit.
10. Remove and store soil	Landscape construction qualification/skills.	Environmental protection standard (sensitive areas).	Landscaping procedure document. Temporary landscape plan.	PMBOK	Site supervisor to ensure procedure and plan are followed. PM to conduct QA and QC audit.
11. Deliver road gravel	Truck licence.	Road construction standard.	Landscaping procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit.

Task (From Gantt chart)	People Standard	Process Standard	Product/Service Standard	PM Standard	Strategy (Action Plan)
12. Install road gravel	Landscape construction qualification/ skills.	Erosion control standard.	Landscaping procedure document. Temporary landscape plan.	PMBOK	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit. Council to QC audit.
13. Build unsealed car park	Landscape construction qualification/ skills.	Road construction standard.	Landscaping procedure document. Temporary landscape plan.	PMBOK	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit. Council to QC audit.
15. Delivery of granite boulders	Truck licence.	N/A	Landscaping procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit.
16. Construction of retaining walls	Earth moving ticket.	Building standard (structural retaining walls).	Building construction plan.	PMBOK	Construction supervisor to ensure building plan is followed. PM to conduct QC audit. Council to QC audit.
17. Install and compact soil behind walls	Landscape construction qualification/ skills.	Building standard (structural retaining walls).	Building construction plan.	PMBOK	Construction supervisor to ensure building plan is followed. PM to conduct QC audit.
20. Manage erosion	Landscape construction qualification/ skills.	Erosion control standard.	Landscaping procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QA audit.
21. Maintain road	Landscape construction qualification/ skills.	Erosion control standard.	Landscaping procedure document.	PMBOK	Site supervisor to ensure procedure is being followed. PM to conduct QA audit.
22. Monitor trees	Horticulture qualification/ skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is being followed. PM to conduct QA audit.
24. Dig channels	Earth moving ticket.	Underground utilities digging standard.	Building construction plan.	PMBOK	Construction supervisor to ensure plan is followed. QA/QC audit to be done by building construction PM.

Task (From Gantt chart)	People Standard	Process Standard	Product/Service Standard	PM Standard	Strategy (Action Plan)
25. Fill and compact channels	Earth moving ticket.	Underground utilities digging standard.	Building construction plan.	PMBOK	Construction supervisor to ensure plan is followed. PM to conduct QC audit.
26. Clear around surface infrastructure	Landscape construction qualification/skills.	Underground utilities digging standard.	Building construction plan.	PMBOK	Construction supervisor to ensure plan is followed. PM to conduct QC audit.
28. Excavate holes	Earth moving ticket.	Underground utilities digging standard.	Building construction plan.	PMBOK	Construction supervisor to ensure plan is followed. QA/QC audit to be done by building construction PM.
29. Excavate channels for pipes	Earth moving ticket.	Underground utilities digging standard.	Building construction plan.	PMBOK	Construction supervisor to ensure plan is followed. QA/QC audit to be done by building construction PM.
30. Fill channels and compact	Earth moving ticket.	Underground utilities digging standard.	Building construction plan.	PMBOK	Construction supervisor to ensure plan is followed. PM to conduct QC audit.
31. Clear around surface infrastructure	Landscape construction qualification/skills.	Underground utilities digging standard.	Building construction plan.	PMBOK	Construction supervisor to ensure plan is followed. PM to conduct QC audit.
33. Maintain plants	Horticulture qualification/skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QA audit.
34. Maintain green houses	Horticulture qualification/skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QA audit.
35. Remove weeds and pests	Horticulture qualification/skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QA audit.
38. Construct channels	Earth moving ticket.	Erosion control standard.	Landscaping procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit.

Task (From Gantt chart)	People Standard	Process Standard	Product/Service Standard	PM Standard	Strategy (Action Plan)
39. Install granite boulders	Landscape construction qualification/skills.	Erosion control standard.	Landscaping procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit.
40. Excavate main channel from stream	Earth moving ticket.	Erosion control standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.
41. Construct weir	Earth moving ticket.	Erosion control standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.
42. Construct drainage at bottom	Earth moving ticket.	Erosion control standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.
43. Testing and troubleshooting	Earth moving ticket.	Erosion control standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QA/QC audit.
45. Expand car park	Earth moving ticket.	Road construction standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.
46. Move gravel to car park	Landscape construction qualification/skills.	Road construction standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.
47. Seal car park	Landscape construction qualification/skills.	Erosion control standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.
48. Landscape over old access roads	Landscape construction qualification/skills.	Erosion control standard.	Landscaping procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit.
49. Construct stone paving walkway	Landscape construction qualification/skills.	Erosion control standard.	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.
51. Erect signs	Landscape construction qualification/skills.	N/A	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit.

Task (From Gantt chart)	People Standard	Process Standard	Product/Service Standard	PM Standard	Strategy (Action Plan)
52. Landscape around signs	Landscape construction qualification/ skills.	N/A	Permanent landscape plan.	PMBOK	Site supervisor to ensure plan is followed. PM to conduct QC audit. Council to evaluate access and signage in resort.
54. Soil preparation	Horticulture qualification/ skills.	Environmental protection standard (sensitive areas).	Landscaping procedure document. Permanent landscape plan.	PMBOK	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit.
55. Add boulders	Landscape construction qualification/ skills.	Erosion control standard.	Landscaping procedure document. Permanent landscape plan.	PMBOK	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit. Council to conduct audit of channel system.
56. Remove weeds	Horticulture qualification/ skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit.
58. Plant plants from greenhouses	Horticulture qualification/ skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document. Permanent landscape plan.	PMBOK	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit.
59. Purchase additional plants	Horticulture qualification/ skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit.
60. Plant additional plants	Horticulture qualification/ skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document. Permanent landscape plan.	PMBOK	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit.
61. Remove greenhouses	Horticulture qualification/ skills.	Environmental protection standard (sensitive areas).	Plant maintenance procedure document.	PMBOK	Site supervisor to ensure procedure is followed. PM to conduct QC audit. Council to conduct final evaluation of site.

Appendix 10 - Quality Plan

Activity	Items/Individual Deliverables	Standard(s) to be applied	Strategy/Action Plan to meet the standards specified	Responsibility
3. Supply/deliver equipment	Delivery of glasshouse, and plant maintenance equipment.	Landscaping equipment specification.	Site supervisor to ensure goods arrive in good condition.	Andrew Lowe
4. Erect glasshouse	Completed glasshouse.	Plant maintenance procedure document. Temporary landscape plan. Environmental protection standard (sensitive areas).	Site supervisor to ensure it is located and erected as per plan and procedure. PM to conduct QC audit. Council to QC audit.	Andrew Low (Also Sam Ng and Stephen Lyons)
5. Install irrigation, chemicals, etc.	All equipment and irrigation installed inside the glasshouse.	Plant maintenance procedure document. Temporary landscape plan. Environmental protection standard (sensitive areas).	Site supervisor to ensure it is all installed and stored as per plan and procedure. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
6. Dispose of weeds	Weed free site.	Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure disposal is as per procedure. PM to conduct QA audit. Council to QC audit.	Andrew Lowe (Also Sam Ng and Stephen Lyons)
7. Maintain remaining plants/trees	Well maintained plants and trees.	Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is followed. PM to conduct QA audit. Council to QA audit.	Andrew Lowe (Also Sam Ng and Stephen Lyons)
9. Supply/deliver all vehicles and equipment.	All equipment on site ready for use.	Landscaping equipment specification.	Site supervisor to ensure goods arrive in good condition. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng and Stephen Lyons)

Activity	Items/Individual Deliverables	Standard(s) to be applied	Strategy/Action Plan to meet the standards specified	Responsibility
10. Remove and store soil	Pile of soil at designated site near car park.	Landscaping procedure document. Temporary landscape plan. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure and plan are followed. PM to conduct QA and QC audit.	Andrew Lowe (Also Sam Ng)
11. Deliver road gravel	Road gravel piled at a designated site near car park.	Landscaping procedure document. Road construction standard.	Site supervisor to ensure procedure is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
12. Install road gravel	Completed temporary access roads to each chalet site.	Landscaping procedure document. Temporary landscape plan. Erosion control standard.	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit. Council to QC audit.	Andrew Lowe (Also Sam Ng and Stephen Lyons)
13. Build unsealed car park	Car parking for all site workers and visitors.	Landscaping procedure document. Temporary landscape plan. Road construction standard.	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit. Council to QC audit.	Andrew Lowe (Also Sam Ng and Stephen Lyons)
15. Delivery of granite boulders	Pile of granite boulders in designated location near car park.	Landscaping procedure document.	Site supervisor to ensure procedure is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
16. Construction of retaining walls	Retaining walls on each chalet site.	Building construction plan. Building standard (structural retaining walls).	Construction supervisor to ensure building plan is followed. PM to conduct QC audit. Council to QC audit.	(Also Sam Ng and Stephen Lyons)
17. Install and compact soil behind walls	Level sites ready for construction of chalets.	Building construction plan. Building standard (structural retaining walls).	Construction supervisor to ensure building plan is followed. PM to conduct QC audit.	Bob Simons (Also Sam Ng)
20. Manage erosion		Landscaping procedure document. Erosion control standard.	Site supervisor to ensure procedure is followed. PM to conduct QA audit.	Andrew Lowe (Also Sam Ng)

Activity	Items/Individual Deliverables	Standard(s) to be applied	Strategy/Action Plan to meet the standards specified	Responsibility
21. Maintain road		Landscaping procedure document. Erosion control standard.	Site supervisor to ensure procedure is being followed. PM to conduct QA audit.	Andrew Lowe (Also Sam Ng)
22. Monitor trees		Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is being followed. PM to conduct QA audit.	Andrew Lowe (Also Sam Ng)
24. Dig channels	Channels to standard for installing underground utilities.	Building construction plan. Underground utilities digging standard.	Construction supervisor to ensure plan is followed. QA/QC audit to be done by building construction PM.	Bob Simons Kate Chan
25. Fill and compact channels	Utilities inconspicuous apart from small markers for servicing.	Building construction plan. Underground utilities digging standard.	Construction supervisor to ensure plan is followed. PM to conduct QC audit.	Bob Simons (Also Sam Ng)
26. Clear around surface infrastructure	Clearly accessible services.	Building construction plan. Underground utilities digging standard.	Construction supervisor to ensure plan is followed. PM to conduct QC audit.	Bob Simons (Also Sam Ng)
28. Excavate holes	Holes for installation of septic tanks.	Building construction plan. Underground utilities digging standard.	Construction supervisor to ensure plan is followed. QA/QC audit to be done by building construction PM.	Bob Simons (Also Kate Chan)
29. Excavate channels for pipes	Channels to standard for installing sewerage lines.	Building construction plan. Underground utilities digging standard.	Construction supervisor to ensure plan is followed. QA/QC audit to be done by building construction PM.	Bob Simons (Also Kate Chan)
30. Fill channels and compact	Utilities inconspicuous apart from small markers for servicing.	Building construction plan. Underground utilities digging standard.	Construction supervisor to ensure plan is followed. PM to conduct QC audit.	Bob Simons (Also Sam Ng)

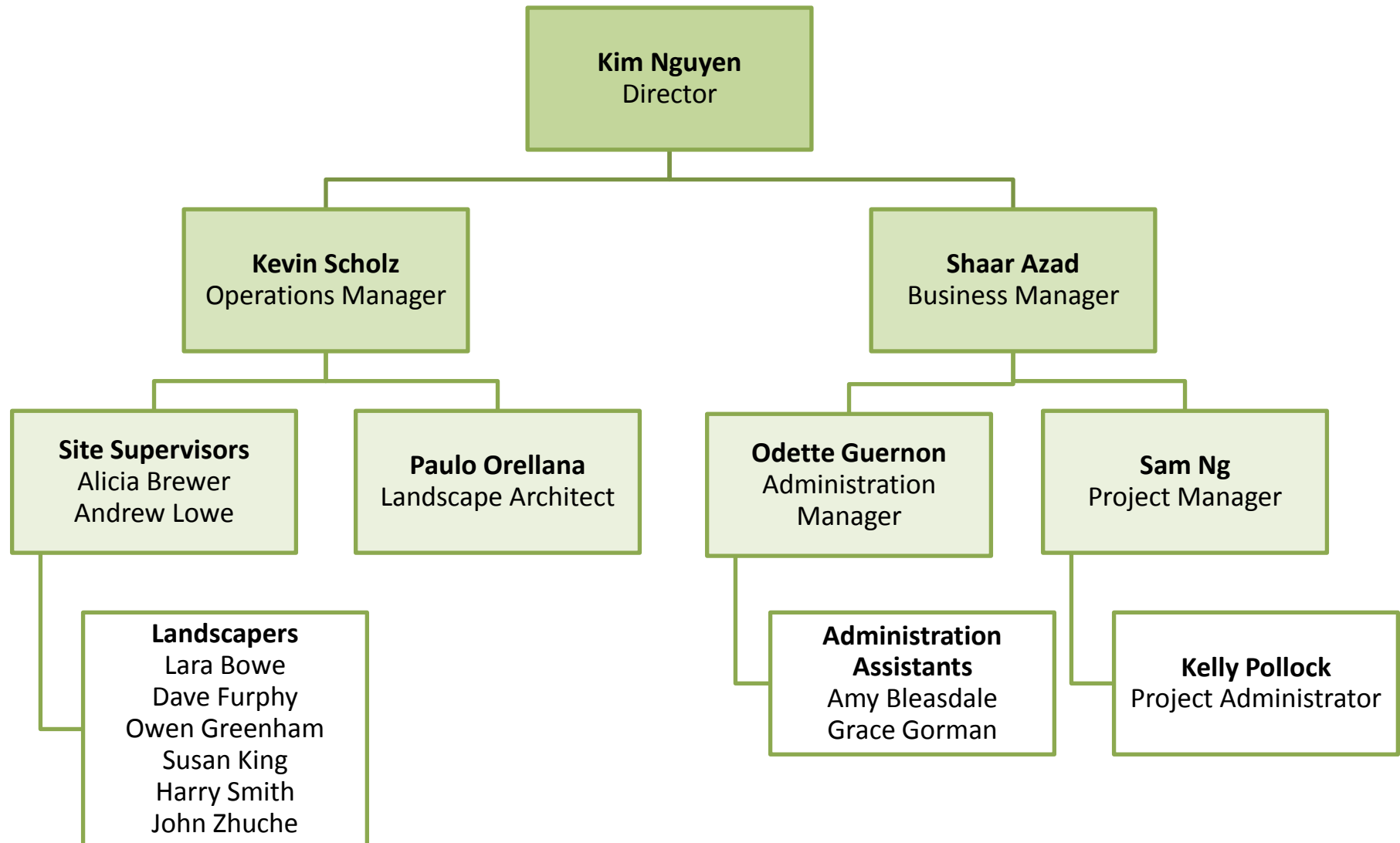
Activity	Items/Individual Deliverables	Standard(s) to be applied	Strategy/Action Plan to meet the standards specified	Responsibility
31. Clear around surface infrastructure	Clearly accessible services.	Building construction plan. Underground utilities digging standard.	Construction supervisor to ensure plan is followed. PM to conduct QC audit.	Bob Simons (Also Sam Ng)
33. Maintain plants		Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is followed. PM to conduct QA audit.	Andrew Lowe (Also Sam Ng)
34. Maintain green houses		Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is followed. PM to conduct QA audit.	Andrew Lowe (Also Sam Ng)
35. Remove weeds and pests	Weed and pest free area.	Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is followed. PM to conduct QA audit.	Andrew Lowe (Also Sam Ng)
38. Construct channels	Channels for streams running between the chalets.	Landscaping procedure document. Erosion control standard.	Site supervisor to ensure procedure is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
39. Install granite boulders	Stable and visually appealing channels running between the chalets.	Landscaping procedure document. Erosion control standard.	Site supervisor to ensure procedure is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
40. Excavate main channel from stream	Concrete channel across the top of the resort for distributing water down the channels.	Permanent landscape plan. Erosion control standard.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
41. Construct weir	Weir and water control system through the resort.	Permanent landscape plan. Erosion control standard.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)

Activity	Items/Individual Deliverables	Standard(s) to be applied	Strategy/Action Plan to meet the standards specified	Responsibility
42. Construct drainage at bottom	Concrete channel across the bottom of the resort to channel distributed water back into the main stream.	Permanent landscape plan. Erosion control standard.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
43. Testing and troubleshooting	Working water channels with no leakages or erosion.	Permanent landscape plan. Erosion control standard.	Site supervisor to ensure plan is followed. PM to conduct QA/QC audit.	Andrew Lowe (Also Sam Ng)
45. Expand car park	Car park large enough to accommodate vehicles during high use times in resort.	Permanent landscape plan. Road construction standard.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
46. Move gravel to car park	Gravelled car park ready for sealing, and resort no longer having access roads.	Permanent landscape plan. Road construction standard.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
47. Seal car park	Sealed car park ready for use.	Permanent landscape plan. Erosion control standard.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
48. Landscape over old access roads	Resort having final contours.	Landscaping procedure document. Erosion control standard.	Site supervisor to ensure procedure is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
49. Construct stone paving walkway	Access to all chalets.	Permanent landscape plan. Erosion control standard.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
51. Erect signs	All chalets easy to find.	Permanent landscape plan.	Site supervisor to ensure plan is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
52. Landscape around signs	Signage blending in well with natural environment.	Permanent landscape plan.	Site supervisor to ensure plan is followed. PM to conduct QC audit. Council to evaluate access and signage in resort.	Andrew Lowe (Also Sam Ng and Stephen Lyons)

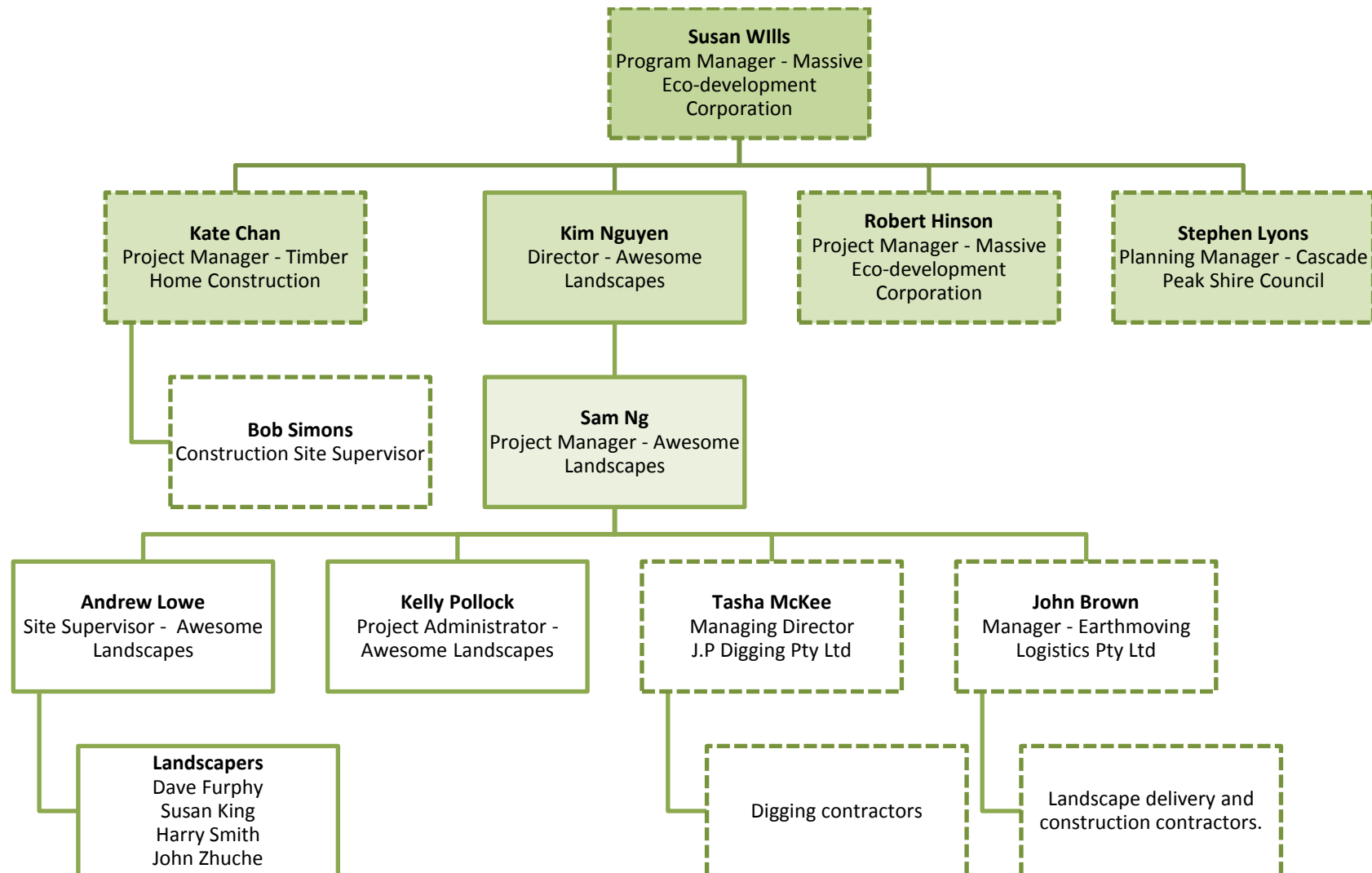
Activity	Items/Individual Deliverables	Standard(s) to be applied	Strategy/Action Plan to meet the standards specified	Responsibility
54. Soil preparation	Soil ready for planting.	Landscaping procedure document. Permanent landscape plan. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
55. Add boulders	All land stable and natural looking ready for planting.	Landscaping procedure document. Permanent landscape plan. Erosion control standard.	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit. Council to conduct audit of channel system.	Andrew Lowe (Also Sam Ng and Stephen Lyons)
56. Remove weeds	Weed free resort.	Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
58. Plant plants from greenhouses	All plants in greenhouse planted around chalets.	Plant maintenance procedure document. Permanent landscape plan. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
59. Purchase additional plants	Enough plants to complete plant cover and soil stability.	Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)
60. Plant additional plants	All planting complete and soil stabilised.	Plant maintenance procedure document. Permanent landscape plan. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure and plan are followed. PM to conduct QC audit.	Andrew Lowe (Also Sam Ng)

Activity	Items/Individual Deliverables	Standard(s) to be applied	Strategy/Action Plan to meet the standards specified	Responsibility
61. Remove greenhouses	Site ready for marketing.	Plant maintenance procedure document. Environmental protection standard (sensitive areas).	Site supervisor to ensure procedure is followed. PM to conduct QC audit. Council to conduct final evaluation of site.	Andrew Lowe (Also Sam Ng and Stephen Lyons)

Appendix 11 – Organisation Chart – Awesome Landscapes



Appendix 12 – Organisation Chart – Cascade Peaks Chalets Project



Appendix 13 - Responsibility Assignment Matrix Template

Project Name: Cascade Peak Chalets Landscaping Project							
Prepared by: Sam Ng, Awesome Landscapes							
Date: 20 April 2016							
PERSON PHASE	Susan Wills (Massive)	Stephen Lyons (Council)	Kim Nguyen (Director, Awesome)	Sam NG (PM Awesome)	(Kelly Pollock (Admin Awesome)	Landscapers incl site supervisor	Sub-contractors
Scoping	A	RS	A	P			
Planning	S	RS	RS	P	P	I	I
1. Pre-building		S	R	A	P	P	P
2. Build support		S	R	A	p	P	P
3. Landscaping		S	R	A	P	P	P
Finalisation	S	S	A	P	P		

P = Participant **A** = Accountable **R** = Review Required

I = Input Required **S** = Sign-off Required

Appendix 14 - Staffing Management Plan

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 20 April 2016
Project Manager: Sam Ng, Awesome Landscapes
Staffing Management Plan Number: 1
Project Team Role: Landscaping and vegetation maintenance throughout project.
Approach to Identifying Human Resource Needs: - Employees of Awesome Landscapes will be utilised where possible. - External contractors will be utilised for skillsets that cannot be fulfilled by Awesome Landscapes. External contractors will be covered separately in the procurement plan.
Approach to Determining Timing Needs for Adding and Removing Project Personnel: - This is a high priority project, so resources will be made available for this project as needed. - The timing of this project will work around the timing of the construction of the chalets.

Human Resource Needs:			
Description	Estimated Number	Projected Commencement	Projected Completion
1. Supervisor of landscapers and onsite contractors.	1	27/7/2016	12/3/2017
2. Landscapers.	4	8/8/2016	12/3/2017

Projected Approach and Schedule for Updating Staffing Management Plan:	
Triggering Event	Expected Timing
Resignation of a landscaper or site supervisor.	2-4 weeks downtime.

•	
•	
Additional Notes:	
1.	
2.	

Appendix 15 - Resource Requirements Worksheet

Work Breakdown Structure Element	Type of Resource Required:	Quantity	Involve Staff Acquisition? (Notes)	Involve Procurement? (Notes)
Phase 1 – Pre-buiding				
3. Supply/deliver equipment	Site supervisor	0.5	No.	No.
	Landscape supplies delivery	1	No.	Yes. (E.L)
4. Erect glasshouse	Site supervisor	0.25	No.	No.
	Landscapers	2	No.	No.
	Landscape supplies delivery	1	No.	Yes. (E.L)
5. Install irrigation, chemicals, etc.	Site supervisor	0.25	No.	No.
	Landscapers	1	No.	No.
6. Dispose of weeds	Site supervisor	0.25	No.	No.
	Landscapers	1	No.	No.
7. Maintain remaining plants/trees	Landscapers	1	No.	No.
9. Supply/deliver all vehicles and equipment.	Site supervisor	0.25	No.	No.
	Landscape supplies delivery	1	No.	Yes. (E.L)
10. Remove and store soil	Site supervisor	0.25	No.	No.
	Landscapers	1	No.	No.
	Digging contractor	1	No.	Yes. (J.P.D.)
11. Deliver road gravel	Site supervisor	0.25	No.	No.
	Landscape supplies delivery	1	No.	Yes. (E.L)
12. Install road gravel	Site supervisor	0.5	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
13. Build unsealed car park	Site supervisor	0.25	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)

Work Breakdown Structure Element	Type of Resource Required:	Quantity	Involve Staff Acquisition? (Notes)	Involve Procurement? (Notes)
15. Delivery of granite boulders	Site supervisor	0.25	No.	No.
	Landscape supplies delivery	0.5	No.	Yes. (E.L)
16. Construction of retaining walls	Site supervisor	0.5	No.	No.
	Landscapers	2	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
17. Install and compact soil behind walls	Site supervisor	0.5	No.	No.
	Landscapers	2	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
Phase 2 – Building Support				
24. Manage erosion	Landscapers	0.3	No.	No.
25. Maintain road	Landscapers	0.3	No.	No.
26. Monitor trees	Landscapers	0.4	No.	No.
28. Dig channels	Site supervisor	0.4	No.	No.
	Digging contractor	0.7	No.	Yes. (J.P.D.)
29. Fill and compact channels	Site supervisor	0.3	No.	No.
	Digging contractor	0.3	No.	Yes. (J.P.D.)
30. Clear around surface infrastructure	Site supervisor	0.3	No.	No.
	Landscapers	1	No.	No.
32. Excavate holes	Site supervisor	0.7	No.	No.
	Digging contractor	1	No.	Yes. (J.P.D.)
33. Excavate channels for pipes	Site supervisor	0.5	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
34. Fill channels and compact	Site supervisor	0.35	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)

Work Breakdown Structure Element	Type of Resource Required:	Quantity	Involve Staff Acquisition? (Notes)	Involve Procurement? (Notes)
35. Clear around surface infrastructure	Site supervisor	0.15	No.	No.
	Landscapers	1	No.	No.
37. Maintain plants	Landscapers	0.4	No.	No.
38. Maintain green houses	Landscapers	0.1	No.	No.
39. Remove weeds and pests	Landscapers	0.5	No.	No.
Phase 3 – Planting and Landscaping				
46. Construct channels	Site supervisor	0.5	No.	No.
	Landscapers	2	No.	No.
	Digging contractor	0.5		Yes. (J.P.D.)
47. Install granite boulders	Site supervisor	0.5	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
48. Excavate main channel from stream	Site supervisor	0.5	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
49. Construct weir	Site supervisor	0.5	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
50. Construct drainage at bottom	Site supervisor	0.5	No.	No.
	Landscapers	2	No	No.
	Digging contractor	0.5	No..	Yes. (J.P.D.)
51. Testing and troubleshooting	Site supervisor	0.5	No.	No.
	Landscapers	2	No	No.
	Digging contractor	0.5	No..	Yes. (J.P.D.)
53. Expand car park	Site supervisor	0.5	No.	No.
	Landscapers	2	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)

Work Breakdown Structure Element	Type of Resource Required:	Quantity	Involve Staff Acquisition? (Notes)	Involve Procurement? (Notes)
54. Move gravel to car park	Site supervisor	0.5	No.	No.
	Landscapers	2	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
55. Seal car park	Site supervisor	0.5	No.	No.
	Digging contractor	0.5	No.	Yes. (J.P.D.)
56. Landscape over old access roads	Site supervisor	0.5	No.	No.
	Landscapers	4	No.	No.
57. Construct stone paving walkway	Site supervisor	0.5	No.	No.
	Landscapers	4	No.	No.
59. Erect signs	Site supervisor	0.2	No.	No.
	Landscapers	1	No.	No.
60. Landscape around signs	Site supervisor	0.2	No.	No.
	Landscapers	1	No.	No.
62. Soil preparation	Site supervisor	1	No.	No.
	Landscapers	4	No.	No.
63. Add boulders	Site supervisor	1	No.	No.
	Landscapers	4	No.	No.
64. Remove weeds	Site supervisor	1	No.	No.
	Landscapers	4	No.	No.
66. Plant plants from greenhouses	Site supervisor	1	No.	No.
	Landscapers	4	No.	No.
67. Purchase additional plants	Site supervisor	1	No.	No.
68. Plant additional plants	Site supervisor	1	No.	No.
	Landscapers	4	No.	No.



Work Breakdown Structure Element	Type of Resource Required:	Quantity	Involve Staff Acquisition? (Notes)	Involve Procurement? (Notes)
69. Remove greenhouses	Site supervisor	1	No.	No.
	Landscapers	4	No.	No.

Appendix 16 - Stakeholder Analysis Template

Project Stakeholder	Specific Information Needs	Best Source of Information Needed	Planned Method of Delivery	Timing Considerations
Project Manager	Progress on all tasks. Any issues.	Site supervisor and contractors.	Phone calls and e-mails.	All communication to be immediate as occurs.
	Due diligence issues.	Project administrator.	Meetings and e-mail.	As needed.
Senior Management (director)	Completion of stages, any major issues. All changes.	Project manager.	Regular meetings and e-mails as needed.	Urgent issues immediate otherwise at weekly meetings.
Site Supervisor	Tasks and quality standards.	Project manager.	Daily task e-mails and phone calls as needed.	All tasks to be communicated well in advance to allow for site planning.
Landscapers	Tasks.	Site supervisor.	Verbal.	Start of each day as needed.
Contractors	Contract with specifications.	Project manager	Meeting.	Prior to commencement of project and when changes have been approved.
	Specific tasks and onsite decisions as needed.	Site supervisor	Verbal	Tasks and decisions communicated as needed.
Project Administrator	Reporting requirements.	Project manager.	Meetings and e-mails.	As needed.
Massive Eco-development Corporation	Completion of phases and stages, project plans, change requests etc. that need to be signed off.	Director (Awesome Landscapes)	Meetings, e-mail attachments.	At predetermined meetings and as needed.
Cascade Peak Shire Council	Project plan, all drafted change requests.	Project manager.	E-mail attachments.	As soon as change requests have been drafted – needs to be signed off prior to approval meeting.

Project Stakeholder	Specific Information Needs	Best Source of Information Needed	Planned Method of Delivery	Timing Considerations
Timber Home Construction	Changes to landscaping project.	Project manager.	Steering committee meetings, e-mail attachment.	As change requests are signed off.

Appendix 17 - Resource Pool Description Template

Project Name: Cascade Peak Chalets Landscaping Project										
PROJECT PERIODS (Months) (Shade in periods of resource availability)										
Resource #	Needed Resources	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Sam Ng Project Manager									
2	Kelly Pollock Project Admin									
3	Andrew Lowe Site Supervisor									
4	Dave Furphy Landscaper									
5	Harry Smith Landscaper									
6	John Zhuche Landscaper									
7	Susan King Landscaper									
8	J.P Digging P/L									
9	Earthmoving Logistics P/L									
Remaining Resource Issues: Nil										

Appendix 18 - Detailed Resource Allocation

Task number	Task Description	Resource Allocation			
		Who	Role	# People	Skills
1	PHASE 1 – PRE-BUILDING				
2	Stage 1.1 – Vegetation Removal				
3	Supply/deliver equipment	Andrew Low (E.L.)	Site supervisor Delivery	0.5 1	Logistics supervision Delivery driving
4	Erect glasshouse	Andrew Lowe John Zhuche Susan King (E.L.)	Site supervisor Landscapers Delivery	0.25 2 1	Construction supervision Glasshouse construction Glasshouse construction
5	Install irrigation, chemicals, etc.	Andrew Lowe Susan King	Site supervisor Landscaper	0.25 1	Construction supervision Irrigation and chemical handling
6	Move plants to glasshouse and dispose of weeds	Andrew Lowe Harry Smith John Zhuche	Site supervisor Landscaper	0.25 2	Supervision Horticulture, native plant maintenance
7	Maintain remaining plants/trees	Harry Smith	Landscaper	1	Native plant maintenance
8	Stage 1.2 – Construct Access Roads				
9	Supply/deliver all vehicles and equipment	Andrew Lowe (E.L.)	Site supervisor Delivery	0.25 1	Logistics supervision Delivery driving
10	Remove and store soil	Andrew Lowe Dave Furphy (J.P.D)	Site supervisor Landscaper Digger	0.25 1 1	Construction site supervision Landscape construction Bobcat operation
11	Deliver road gravel	Andrew Lowe (E.L.)	Site supervisor Delivery	0.25 1	Logistics supervision Delivery driving

Task number	Task Description	Resource Allocation			
		Who	Role	# People	Skills
12	Install road gravel	Andrew Lowe (J.P.D)	Site supervisor Digger	0.5 0.5	Construction site supervision Road construction
13	Build unsealed car park	Andrew Lowe (J.P.D)	Site supervisor Digger	0.25 0.5	Construction site supervision Road construction
14	Stage 1.3 – Build Retaining Walls				
15	Delivery of granite boulders	Andrew Lowe (E.L.)	Site supervisor Delivery	0.25 0.5	Logistics supervision Delivery driving
16	Construction of retaining walls	Andrew Lowe Dave Furphy Harry Smith (J.P.D)	Site supervisor Landscapers Excavation	0.5 2 0.5	Construction site supervision Retaining wall construction Retaining wall construction
17	Install and compact soil behind walls	Andrew Lowe John Zhuche Susan King (J.P.D)	Site supervisor Landscapers Soil construct.	0.5 2 0.5	Construction site supervision Retaining wall construction Retaining wall construction
18	Phase 1 Project Management				
19	Project Management	Sam Ng	Project manager	1	Project management
20	Project support staff	Kelly Pollock	Project administrator	1	Project administration
22	PHASE 2 – BUILDING SUPPORT				
23	Stage 2.1 – Monitor Site				
24	Manage erosion	Harry Smith	Landscaper	0.3	Maintenance of env. sensitive areas.
25	Maintain road	Harry Smith	Landscaper	0.3	Maintenance of env. sensitive areas.
26	Monitor trees	Harry Smith	Landscaper	0.4	Maintenance of env. sensitive areas.

Task number	Task Description	Resource Allocation			
		Who	Role	# People	Skills
27	Stage 2.2 – Excavate Incoming Utilities				
28	Dig channels	Andrew Lowe (J.P.D)	Site supervisor Digger	0.4 0.7	Construction supervision Excavation for utilities
29	Fill and compact channels	Andrew Lowe (J.P.D)	Site supervisor Digger	0.3 0.3	Construction supervision Excavation for utilities
30	Clear around surface infrastructure	Andrew Lowe John Zhuzche	Site supervisor Landscaper	0.3 1	Construction supervision Landscape excavation
31	Stage 2.3 – Excavate Septic System				
32	Excavate holes	Andrew Lowe (J.P.D)	Site supervisor Digger	0.7 1	Construction supervision Excavation for utilities
33	Excavate channels for pipes	Andrew Lowe (J.P.D)	Site supervisor Digger	0.5 0.5	Construction supervision Excavation for utilities
34	Fill channels and compact	Andrew Lowe (J.P.D)	Site supervisor Digger	0.35 0.5	Construction supervision Excavation for utilities
35	Clear around surface infrastructure	Andrew Low John Zhuzche	Site supervisor Landscaper	0.15 1	Construction supervision Landscape excavation
36	Stage 2.4 – Maintain Removed Plants				
37	Maintain plants	Susan King	Landscaper	0.4	Maintenance of env. sensitive areas
38	Maintain green houses	Susan King	Landscaper	0.1	Glasshouse maintenance
39	Remove weeds and pests	Susan King	Landscaper	0.5	Maintenance of env. sensitive areas
40	Phase 2 Project Management				
41	Project Management	Sam Ng	Project manager	1	Project management

Task number	Task Description	Resource Allocation			
		Who	Role	# People	Skills
42	Project support staff	Sam Ng	Project administrator	1	Project administration
44	PHASE 3 – PLANTING AND LANDSCAPING				
45	Stage 3.1 – Divert Stream				
46	Construct channels	Andrew Lowe	Site supervisor	0.5	Construction supervision
		Harry Smith John Zhuzche (J.P.D)	Landscapers Digger	2 0.5	Landscape excavation Construction of waterways
47	Install granite boulders	Andrew Lowe (J.P.D)	Site supervisor Digger	0.5 0.5	Construction supervision Heavy landscaping
48	Excavate main channel from stream	Andrew Lowe (J.P.D)	Site supervisor Digger	0.5 0.5	Construction supervision Construction of waterways
49	Construct weir	Andrew Lowe (J.P.D)	Site supervisor Digger	0.5 0.5	Construction supervision Dam constructing
50	Construct drainage at bottom	Andrew Lowe	Site supervisor	0.5	Construction supervision
		Harry Smith John Zhuzche (J.P.D)	Landscapers Digger	2 0.5	Landscape excavation Construction of waterways
51	Testing and troubleshooting	Andrew Lowe	Site supervisor	0.5	Construction supervision/troubleshooting
		Harry Smith John Zhuzche (J.P.D)	Landscapers Digger	2 0.5	Landscape excavation
52	Stage 3.2 – Convert Roads to Paths				

Task number	Task Description	Resource Allocation			
		Who	Role	# People	Skills
53	Expand car park	Andrew Lowe	Site supervisor	0.5	Construction supervision
		Dave Furphy	Landscapers	2	Landscape excavation
		Susan King (J.P.D)	Digger	0.5	Road construction
54	Move gravel to car park	Andrew Lowe	Site supervisor	0.5	Construction supervision
		Dave Furphy	Landscapers	2	Landscape excavation
		Susan King (J.P.D)	Digger	0.5	Surface excavation
55	Seal car park	Andrew Lowe (J.P.D)	Site supervisor Digger	0.5 0.5	Construction supervision Road construction
56	Landscape over old access roads	Andrew Lowe Dave Furphy Susan King Harry Smith John Zhuche	Site supervisor Landscapers	0.5 4	Construction supervision Landscape construction
57	Construct stone paving walkway	Andrew Lowe Dave Furphy Susan King Harry Smith John Zhuche	Site supervisor Landscapers	0.5 4	Construction supervision Landscape construction
58	Stage 3.3 – Erect Signage				
59	Erect signs	Andrew Lowe Susan King	Site supervisor Landscaper	0.2 1	Construction supervision Landscape construction
60	Landscape around signs	Andrew Lowe Susan King	Site supervisor Landscaper	0.2 1	Construction supervision Landscape construction
61	Stage 3.4 – Detailed Landscaping				

Task number	Task Description	Resource Allocation			
		Who	Role	# People	Skills
62	Soil preparation	Andrew Lowe Dave Furphy Susan King Harry Smith John Zhuche	Site supervisor Landscapers	1 4	Construction supervision Landscape construction
63	Add boulders	Andrew Lowe Dave Furphy Susan King Harry Smith John Zhuche	Site supervisor Landscapers	1 4	Construction supervision Landscape construction
64	Remove weeds	Andrew Lowe Dave Furphy Susan King Harry Smith John Zhuche	Site supervisor Landscapers	1 4	Construction supervision Maintenance of env. sensitive areas
65	Stage 3.5 – Planting				
66	Plant plants from greenhouses	Andrew Lowe Dave Furphy Susan King Harry Smith John Zhuche	Site supervisor Landscapers	1 4	Construction supervision Maintenance of env. sensitive areas
67	Purchase additional plants	Andrew Lowe	Site supervisor	1	Purchasing
68	Plant additional plants	Andrew Lowe Dave Furphy Susan King Harry Smith John Zhuche	Site supervisor Landscapers	1 4	Construction supervision Landscape construction

Task number	Task Description	Resource Allocation			
		Who	Role	# People	Skills
69	Remove greenhouses	Andrew Lowe	Site supervisor	1	Construction supervision
		Dave Furphy	Landscapers	4	Glasshouse construction
		Susan King Harry Smith John Zhuche (E.L.)	Delivery	1	Delivery driving
70	Phase 3 Project Management				
71	Project Management	Sam Ng	Project manager	1	Project Management
72	Project support staff	Kelly Pollock	Project administrator	1	Project Administration

Appendix 19 - Issues Register Template

Issue #	Date/time raised	Description	Who raised	Action History	Status open/closed

Appendix 20 - Communications Plan Template

Project Name: Cascade Peak Chalets Landscaping Project						
Prepared by: Sam Ng, Awesome Landscapes						
Date: 20 April 2016						
Key Stakeholders (Distribution Schedule)	Stakeholder Issues	Key Messages to Communicate	Communication Methods to be Used (written, one-on-one, electronic, meetings, etc.)	Description of Specific Communications (content, format, level of detail, etc.)	Timing Issues (see also <i>Bar Chart, Project Schedule</i>)	Other
Massive Eco-development Corporation	Concerned about project as they are funding it and will require it to be finished on time to market.	Progress of report. Any issues likely to impact on scope, cost, time, or quality of project.	E-mail attachments or phone for urgent issues. Meetings when changes needed.	Formal project documentation and meetings. Informal phone calls for urgent issues.	Urgent issues immediate. Otherwise weekly progress meetings.	
Awesome – Senior management	Delivery of project within fixed budget.	Progress of project. Any issues likely to cost time or money.	Weekly meetings.	Informal meetings. Formal project documentation prepared upon any changes.	Weekly informal meetings, though urgent issues to be communicated immediately.	
Awesome – Site supervisor	Day to day delivery of landscaping work. Coordinating resources.	Project tasks, timeframes and quality requirements.	Daily phone calls and e-mails, and regular site visits.	Informal communication only on a daily basis.	Daily communication at all times, but more frequently when critical issues arise.	
Awesome – Team members	Ensuring tasks are allocated as needed.	Project tasks through site supervisor.	Through site supervisor.	Informal communication only on a daily basis.	Constant supervision by site supervisor.	
Timber Home Construction	Ensuring landscaping work does not damage or delay any work done on chalets.	Any issues with landscaping likely to impact on construction.	Phone calls for all issues. Approved change requests and updated project plans where needed.	Informal communication unless change request needed. Then formal meeting and project documentation.	Issues to be communicated immediately.	

Cascade Peak Shire Council	Compliance of the landscaping with requirements of environmentally sensitive work sites.	Initial project plan. Any change requests including updates to project plan.	E-mail attachment drafts for submission, and hard copy signed documents for final approvals.	All communication to be formal with approved project plan updates and change requests where needed.	Changes to be communicated when clear, then formal change requests and changes to the project plan to be communicated as quickly as possible to expedite the approval process.	
J.P Digging	Coordination with project team and construction company.	Tasks, plan and specifications, details of the installers.	Phone and e-mail as needed.	Formal contract, and contract variations where needed. Otherwise informal communication .	Tasks to be confirmed two weeks prior to task commencement. All issues to be communicated immediately.	
Earthmoving Logistics	Coordination with the project team.	Quantity and timing of goods to be delivered or removed from site.	Phone and e-mail as needed.	Formal contract, and contract variations where needed. Otherwise informal communication .	Tasks to be confirmed two weeks prior to task commencement. All issues to be communicated immediately.	
Media	Having information the general public are interested in.	Massive to communicate progress as part of marketing campaign.	E-mails from Massive only.	Formal media releases from Massive.	Massive to coordinate timing of media releases.	

Appendix 21 - Communication Requirements Analysis

Worksheet

Project Name: Cascade Peak Chalets Landscaping Project				
General Area of Communication Need	Information Needed, and for Whom?	Optimum Information Format(s)	How is this communication essential to success of project?	Decision to implement Yes/No
Project Organisation Relationships	Coordination between development and landscaping projects, needed by Eco-development Corporation.	Project plan and other formal documentation. Management meetings.	This project is heavily interdependent on the chalet construction project.	Yes
Stakeholder Responsibility Relationships	Project plans and change requests for project managers of Awesome Landscaping, Eco-development Corporation, Timber Home Construction. Contractual agreement with external contractors.	Project plans status reports, change requests, formal meetings. Contracts for external contractors.	The project plans, change management process and contracts ensure all stakeholders know exactly what is expected to deliver the project under scope, time, cost and quality constraints.	Yes
Sponsor Relationships	Project status updates and change requests for Eco-development Corporation.	Change request and status reports.	Ensures the project sponsor is able to make informed decisions as needed.	Yes
Logistics of Project Staffing by Location	Available resources, etc. project Gantt chart required by site supervisor.	E-mail, and follow up phone calls.	Ensures each project team member and contractor knows exactly what work is required at any given time. Also ensures coordination between all parties so predecessor tasks are complete when needed.	Yes
<i>External: Media</i>	Overall progress of development and release for sale date.	Media releases (only by Eco-development Corporation.	Gets interest from potential buyers.	Yes
<i>External: Community</i>	N/A (Project is located remotely).	N/A	N/A	N/A
<i>External: Government, Regulatory Agencies</i>	Project plan, any change requests required for Council.	Formal project meetings, status reports, project plan, change requests.	The original project plan and all change requests are required to receive formal Council approval by law.	Yes

Appendix 22 - Risk Management Plan Template

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 27 April 2016
Description of Risk Management Methodology to be Used:
Approaches The risk management processes for this project will follow the AS/NZS ISO 31000/2009 standard under the PMBOK project management methodology.
Tools The following tools will be used for managing risk in this project. These tools have been included in these project plan appendices. • Risk Identification – SWOT Analysis Template • Rating Impacts for a Risk Table • Risk Rating Table • Project Risk Prioritisation Worksheet Template • Risk Brainstorming Session Worksheet Template • Project Risk Categorisation Worksheet Template • Risk Response Plan Template • Workaround Planning Worksheet Template • Project Risk Review Matrix Template
Data Sources There is no previous record of risk management for these project, so there are no data sources for the risk management plan.
Roles and Responsibilities: • All onsite risk management is the responsibility of Andrew Lowe, the site supervisor. • All risk planning and risk management decision making is the responsibility of the project manager. • All incidents must be reported to the project manager. Any incidents requiring a change to any of the nine functions of project management must go through the change management process documented within this project plan.

Timing: (Describe how risk management will relate to the project life cycle, and at what points it will be reviewed during the execution of the project)

- A risk register will be maintained during the project. This will be updated by the project administrator as issues arise.
- Risks will be reviewed at the conclusion of each of the three phases of the project.
- The risk management documentation will be retained for use in future landscaping projects.

Appendix 23 - Risk Identification – SWOT Analysis

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 1 May 2016
Project Manager: Sam Ng, Awesome Landscapes
SWOT Analysis Facilitator: Sam Ng, Awesome Landscapes
SWOT Analysis Participants: • Andrew Lowe – Site Supervisor • Susan King - Landscaper
SWOT Analysis Recorder: Kelly Pollock, Project Administrator
Date of SWOT Analysis: 30 April 2016
Project Strengths: (What potential strengths exist about the project, the project team, the sponsor, the organisation structure, the client, the project schedule, the project budget, the product of the project, etc.?) 1. Strong past experience in delivering similar projects to a similar standard. 2. Past experience in delivering similar landscaping projects working around building construction work. 3. Extensive experience in maintaining the native vegetation in the area.
Project Weaknesses: (What potential weaknesses exist about the project, the project team, the sponsor, the organisation structure, the client, the project schedule, the project budget, the product of the project, etc.?) 1. Progress of the project will be heavily dependent on the progress of the construction project. 2. Dependence on external contractors for all excavation and delivery work means performance will be harder to monitor.

Project Opportunities: (What potential opportunities exist in regard to achieving the project requirements, the product requirements, the project schedule, the project resources, the project quality, etc.?)

1. Ongoing work in future projects with Eco-development Corporation.
2. Ongoing landscaping maintenance work at the resort once complete.

Project Threats: (What potential threats exist in regard to achieving the project requirements, the product requirements, the project schedule, the project resources, the project quality, etc.?)

1. Any delays in the construction project will impact heavily on this project.
2. Severe weather is likely to create delays in the project and may increase the scope of the project to counter erosion.

Appendix 24 - Rating Impacts for a Risk

Project Name: Cascade Peak Chalets Landscaping Project					
Prepared by: Sam Ng, Awesome Landscapes					
Date: 30 April 2016					
Evaluating Impact of a Risk on Major Project Objectives (ordinal scale or cardinal, non-linear scale)					
Project Objective	Very Low .05	Low .1	Moderate .2	High .4	Very High .8
Cost	Insignificant Cost Increase	<5% Cost Increase	5–10% Cost Increase	10–20% Cost Increase	>20% Cost Increase
Schedule	Insignificant Schedule Slippage	Schedule Slippage <5%	Overall Project Slippage 5–10%	Overall Project Slippage 10–20%	Overall Project Schedule Slips >20%
Scope	Scope Decrease Barely Noticeable	Minor Areas of Scope Are Affected	Major Areas of Scope Are Affected	Scope Reduction Unacceptable to the Client	Project End Item Is Effectively Useless
Quality	Quality Degradation Barely Noticeable	Only Very Demanding Applications Are Affected	Quality Reduction Requires Client Approval	Quality Reduction Unacceptable to the Client	Project End Item Is Effectively Unusable

The impacts on project objectives can be assessed on a scale from Very Low to Very High or on a numerical scale.

The numerical (cardinal) scale shown here is non-linear, indicating that the organisation wishes specifically to avoid risks with high and very-high impact.

Appendix 25 - Risk Rating Table

Level	Descriptor	Description
E	Extreme	Immediate action required, senior management involvement necessary now.
H	High	Action is required in the short term, strategies to treat the risk must be identified.
M	Moderate	Responses need to be identified and the risks monitored.
L	Low	Monitor by routine procedures.

Likelihood	Consequence				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (Almost certain)	High	High	Extreme	Extreme	Extreme
B (Likely)	Moderate	High	High	Extreme	Extreme
C (Moderate)	Low	Moderate	High	Extreme	Extreme
D (Unlikely)	Low	Low	Moderate	High	Extreme
E (Rare)	Low	Low	Moderate	High	High

Hierarchy of Controls

Elimination	Most effective.
Substitution	Use something else or a less hazardous process.
Isolation	Use barriers to shield or isolate the hazard.
Engineering Control	Design and install equipment to counteract the hazard.
Administrative Control	Arrange work to reduce exposure to the hazard and provide training and assessment.
Personal Protective Equipment	Wear PPE while exposed to the hazard – Least effective.

Appendix 26 - Risk Brainstorming Session Worksheet

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 1 May 2016
Session Facilitator: Sam Ng
Title/Position: Project manager
Participating Group: • Andrew Lowe – Site Supervisor • Susan King – Landscaper • Kelly Pollock – Project Administrator
Location: Awesome Landscapes Office

Identified Risk	Probability of Occurrence	Potential Impact	Inherent Risk Rating	Controls to be used on risk	Residual Risk Rating	Proposed Actions	Identified by Whom?	Who is responsible?
Severe weather during the project.	Moderate	Moderate	High	Isolation and engineering control. Minimise areas being worked on at any given time.	Moderate.	Assess damaged areas, and focus all landscaping work on repairing damage. Report any damage to buildings or utility infrastructure and include in change request.	Andrew	Andrew Lowe

Identified Risk	Probability of Occurrence	Potential Impact	Inherent Risk Rating	Controls to be used on risk	Residual Risk Rating	Proposed Actions	Identified by Whom?	Who is responsible?
Delays in the construction of the chalets.	Moderate	Major	Extreme	Administrative Control Closely liaise with Kate Chan during phase 1 to ensure the commencement of construction will start on schedule.	Moderate	Put landscapers onto other projects/maintenance work where available and negotiate a change request where needed.	Sam	Sam Ng
Delays in supply of the glasshouse and landscaping supplies.	Unlikely	Moderate	Moderate	Administrative control Contact the supplier two weeks in advance to ensure they will be delivered on time.	Moderate	Put landscapers onto other projects/maintenance work where available and negotiate a change request where needed.	Andrew	Sam Ng
Delays in supply of road base.	Moderate	Moderate.	High	Administrative control Contact the supplier two weeks in advance to ensure roadbase will be delivered on time.	Moderate	Put landscapers onto other projects/maintenance work where available and negotiate a change request where needed.	Kelly	Sam Ng
Landscapers leaving the company.	Unlikely	Moderate	Moderate	Administrative control Use long-term employees in project. Ensure they are happy in their work.	Low	Advertise for position immediately if a landscaper hands in their notice (4 weeks required)	Andrew	Sam Ng, Andrew Lowe
Site supervisor leaving the company.	Unlikely	Major	High	Administrative control Use long-term employee in project. Ensure they are happy in their work.	Moderate	Advertise position immediately if site supervisor resigns (4 weeks' notice).	Susan	Sam Ng

Identified Risk	Probability of Occurrence	Potential Impact	Inherent Risk Rating	Controls to be used on risk	Residual Risk Rating	Proposed Actions	Identified by Whom?	Who is responsible?
Digging contractor not performing the work to the required standard.	Moderate	Moderate	High	Administrative control Ensure contract is clear, and includes an exit clause if they are not performing to standard. Site supervisor to closely monitor work.	Moderate	Onsite rectification and/or find a new contractor.	Andrew	Andrew Lowe
Underground utilities not being installed properly.	Moderate	Major	Extreme	Administrative control Andrew Lowe to familiarise himself with underground utilities standards and closely supervise the digging work to ensure standards are met.	Moderate	Onsite rectification and/or find a new contractor. Legal action for compensation if needed.	Sam	Andrew Lowe
Lengthy processing of change request by Council.	Moderate	Major	Extreme	Administrative control Send in draft change requests to Council as quickly as possible. Ensure a strong relationship is maintained with Council at all times and ensure change requests are specific and very clear to assist in a speedy approval process.	High	Acceptance of risk.	Sam	Sam Ng

Identified Risk	Probability of Occurrence	Potential Impact	Inherent Risk Rating	Controls to be used on risk	Residual Risk Rating	Proposed Actions	Identified by Whom?	Who is responsible?
Timeframes not being properly communicated to landscapers and contractors.	Moderate	Moderate	High	Administrative control Sam to clearly communicate upcoming requirements to Andrew on a weekly basis. Andrew to clearly communicate requirements to each team member and contractor as needed well in advance.	Moderate	Review communications processes.	Andrew	Sam Ng Andrew Lowe

Appendix 27 - Project Risk Categorisation Worksheet

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 1 May 2016
<i>NOTE: List all identified project risks within each category. Retain this information for reference throughout the risk management process:</i>
Technical, quality, or performance risks—such as reliance on unproven or complex technology, unrealistic performance goals, changes to the technology used or to industry standards during the project. • Delays in supply of the glasshouse and landscaping supplies. • Delays in supply of road base. • Digger contractor not performing the work to the required standard. • Underground utilities not being installed properly.
Project-management risks—such as poor allocation of time and resources, inadequate quality of the project plan, poor use of project management disciplines. • Timeframes not being properly communicated to landscapers and contractors.
Organisational risks—such as cost, time, and scope objectives that are internally inconsistent, lack of prioritisation of projects, inadequacy or interruption of funding, and resource conflicts with other projects in the organisation. • Landscapers leaving the company. • Site supervisor leaving the company.
External risks—such as shifting legal or regulatory environment, labour issues, changing owner priorities, country risk, and weather. Force majeure risks such as earthquakes, floods, and civil unrest generally require disaster recovery actions rather than risk management. • Severe weather during the project. • Delays in construction of the chalets. • Lengthy processing of change request by Council.

Appendix 28 - Project Risk Prioritisation Worksheet

Project Name: Cascade Peak Chalets Landscaping Project

Prepared by: Sam Ng, Awesome Landscapes

Date: 1 May 2016

By Rank:

Identified Risk	Low Risk (Check ✓)	Medium Risk (Check ✓)	High Risk (Check ✓)	Work Breakdown Structure Level
Severe weather during the project.		x		All phases
Delays in the construction of the chalets.		x		Phase 2
Delays in supply of the glasshouse and landscaping supplies.		x		Phase 1
Delays in supply of road base.		x		Phase 1
Landscapers leaving the company.	x			All phases
Site supervisor leaving the company.		x		All phases
Digging contractor not performing the work to the required standard.		x		Phases 2 and 3
Underground utilities not being installed properly.		x		Phase 2
Lengthy processing of change request by Council.			x	All phases
Timeframes not being properly communicated to landscapers and contractors.		x		All phases

By Required Response:

Identified Risk	Can Be Handled Later (specify planned response)	Requires Immediate Response! (specify planned actions and who is assigned responsibility)
Severe weather during the project.	Plan to remedy areas of erosion and damage. Sam and Andrew.	Work in minimal sized areas at any given time and ensure worksite is stabilised at the end of each day. Andrew.
Delays in the construction of the chalets.		Closely liaise with Kate Chan during phase 1 to ensure the commencement of construction will start on schedule. Sam.
Delays in supply of the glasshouse and landscaping supplies.		Contact the supplier two weeks in advance to ensure they will be delivered on time. Sam.
Delays in supply of road base.		Contact the supplier two weeks in advance to ensure roadbase will be delivered on time. Sam.
Landscapers leaving the company.	Advertise for position immediately if a landscaper hands in their notice (4 weeks required)	Use long-term employees in project. Ensure they are happy in their work. Sam and Andrew.
Site supervisor leaving the company.	Advertise position immediately if site supervisor resigns (4 weeks' notice).	
Digging contractor not performing the work to the required standard.	Closely monitor the project and report to project manager if there are issues.	Ensure contract is clear, and includes an exit clause if they are not performing to standard. Sam.
Underground utilities not being installed properly.	Closely monitor the project and report to project manager if there are issues.	Andrew Lowe to familiarise himself with underground utilities standards and closely supervise the digging work to ensure standards are met.

Identified Risk	Can Be Handled Later (specify planned response)	Requires Immediate Response! (specify planned actions and who is assigned responsibility)
Lengthy processing of change request by Council.		Send in draft change requests to Council as quickly as possible. Ensure a strong relationship is maintained with Council at all times and ensure change requests are specific and very clear to assist in a speedy approval process.
Timeframes not being properly communicated to landscapers and contractors.		Sam to clearly communicate upcoming requirements to Andrew on a weekly basis. Andrew to clearly communicate requirements to each team member and contractor as needed well in advance.

By Area of Expected Impact:

Area of Impact	Identified Risks affecting this area	Level of Risk: <i>High, Medium, Low</i>	Basis for High-Risk Assessments
Cost	- Severe weather during the project. - Site supervisor leaving the company.	Medium	
Schedule	- Severe weather during the project. - Delays in the construction of the chalets. - Delays in supply of the glasshouse and landscaping supplies. - Delays in supply of road base. - Landscapers leaving the company. - Lengthy processing of change request by Council. - Timeframes not being properly communicated to landscapers and contractors.	High	
Functionality	- Severe weather during the project. - Underground utilities not being installed properly.	Medium	
Quality	- Landscapers leaving the company. - Site supervisor leaving the company. - Digging contractor not performing the work to the required standard. - Underground utilities not being installed properly.	Medium	

Appendix 29 - Risk Response Plan

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 1 May 2016
Description of Risk Identified: Landscaping staff leaving the company.
Person(s) Responsible: Sam Ng
Results from Risk Analysis: Low risk rating.
Agreed Responses (avoidance, transference, mitigation, acceptance):
Response #1 Avoidance: Use long-term employees in project. Ensure they are happy in their work. Sam and Andrew.
Response #2 Mitigation: Advertise for position immediately if a landscaper hands in their notice (4 weeks required)
Residual Risk Level: Moderate - Loss of knowledge resulting in lower quality work requiring rework and/or purchase of additional plants towards the end of the project.
Action Steps: 1. Hire long term landscaping employees into project. 2. Ensure landscaping employees are happy to be based up the mountain for long periods of time. 3. Ensure morale remains high throughout the project. 4. Give the employees a sense of ownership in the work they are doing.
Budget & Time for Response: Nil

Contingency/Fallback Plans:

Should landscaper leave the company:

1. The site supervisor to advise the project manager immediately, who will contact the director.
2. Project manager to advertise for a new landscaper as soon as possible.
3. The project manager to give a high priority to the employment process so a replacement can start within a week or two of the old landscaper leaving.
4. Old landscaper and site supervisor to induct new recruit.



Appendix 30 - Workaround Planning Worksheet Template

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by:
Date:
Description of Emerging Risk Identified:
Person(s) Responsible:
Results from Risk Analysis (if applicable):
Description of Plan to Respond (avoidance, transference, mitigation, acceptance):
Description of Residual Risk Level:
Action Steps:
Budget & Time for Response:
Contingency/Fallback Plans:
Additional Notes:

Appendix 31 - Project Risk Review Matrix Template

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by:
Date:
Meeting Date:
Purpose of Meeting:

CHANGES IN RISK FACTORS: Notes				
Identified Risk	<i>Changes in Probability Of Occurrence</i>	<i>Changes in Priority</i>	<i>Changes in Ownership/ Responsibility</i>	<i>Changes in Needed Response</i>

CHANGES IN RISK FACTORS: Notes

Identified Risk	<i>Changes in Probability Of Occurrence</i>	<i>Changes in Priority</i>	<i>Changes in Ownership/ Responsibility</i>	<i>Changes in Needed Response</i>

Additional Notes/Comments/Agreements/Next Steps:

Appendix 32 - Statement of Work – J.P Digging

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 8 May 2016
Vendor Name: Earthmoving Logistics Pty Ltd
Description of Deliverables or Procurement Items (in as much detail as needed to accurately define the proposed work): Phase 1 – Pre-building • Remove and store soil. ○ Dig routes of access roads around existing trees. ○ Relocate soil to designated area near car park. ○ Excavation must be suitable for temporary road gravel. • Install road gravel. ○ Take delivered gravel from near car park and construct temporary access roads through the resort. ○ Compact gravel to make suitable for access vehicles. ○ Ensure erosion risk is minimized. • Build unsealed car park. ○ Excavate car park area. ○ Lay gravel over car park. ○ Compact gravel to make suitable for parking vehicles. ○ Ensure erosion risk is minimized. • Construct retaining walls. ○ Prepare site for construction. ○ Move boulders from storage area near car park to construction area. ○ Erect retaining walls using cemented boulders. ○ Ensure retaining wall stability. • Install and compact soil behind retaining walls. ○ Take soil from designated soil area as needed. ○ Install soil behind retaining wall. ○ Compact soil and ensure it is level ready for chalet construction. Phase 2 – Building Support • Dig channels for incoming utilities. ○ Dig channels from utilities access points at road. ○ Dig channels into chalet sites from the high side opposite the retaining walls. • Fill and compact channels for incoming utilities. ○ Once utilities have been installed, tested and quality inspected, fill the channels. ○ Compact the channels. ○ Place markers for future maintenance. • Excavate holes for septic system.

- Determine size of hole needed.
- Excavate hole and take soil to designated soil storage near car park.
- Bury septic tanks once installed.
- Compact soil around septic tanks.
- Excavate channels for pipes to septic system.
 - Dig channels from chalets to septic tanks.
- Fill septic system channels and compact.
 - Once sewers have been installed, tested and quality inspected, fill the channels.
 - Compact the channels.
 - Place markers for future maintenance.

Phase 3 – Planting and Landscaping

- Construct channels for stream through resort.
 - Dig channels closely following plan.
 - Ensure no erosion is likely around chalets.
- Install granite boulders in channels.
 - Install boulders to hold channels and allow water to cascade.
- Excavate main channel from stream.
 - Construct channel from start of proposed end of weir across to the top of each channel.
 - Concrete channel.
 - Build channel gates.
- Construct weir.
 - Excavate weir pond, moving any excess soil to designated storage area near car park.
 - Build concrete weir.
 - Build gate from weir.
 - Excavate diversion from main stream to weir.
 - No water may enter the channels yet.
- Construct drainage at bottom of channels.
 - Excavate drainage channel from bottom of resort channels back into main stream.
 - Create concrete channel.
- Testing and troubleshooting.
 - Open weir gate allowing water to flow into top channel.
 - Open each gate to allow optimum amount of water into resort streams.
 - Quality test each channel for water flow, leakage and erosion.
 - Troubleshoot and repair any issues.
- Expand car park.
 - Excavate soil in car park.
 - Create car park retaining wall.
 - Fill retaining wall with excess soil from excavations.
- Move gravel to car park.
 - Remove gravel from temporary access roads, starting at the chalets and working back towards the road.
 - Relocate gravel to car park.
 - Compact gravel ready for sealing.
- Seal car park.
 - Organise delivery of bitumen.
 - Seal bitumen over gravel.

- Add boulders to landscaping around chalets.
 - Move remaining boulders from storage area to landscape around the chalets as directed by the site supervisor.

Required Timeline and Milestone Dates:

Phase 1 – Pre-building

- Remove and store soil. To be conducted between Thursday 8 August and Thursday 23 August.
- Install road gravel. To be conducted between Thursday 23 August and Wednesday 29 August.
- Build unsealed car park. To be conducted between Thursday 23 August and Monday 27 August.
- Construct retaining walls. To be conducted between Monday 3 September and Friday 21 September.
- Install and compact soil behind retaining walls. To be conducted between Monday 3 September and Monday 24 September.

Phase 2 – Building Support

- Dig channels for incoming utilities. To be conducted between Monday 22 October and Wednesday 14 November.
- Fill and compact channels for incoming utilities. To be conducted between Monday 29 October and Monday 19 November.
- Excavate holes for septic system. To be conducted between Monday 19 November and Tuesday 4 December.
- Excavate channels for pipes to septic system. To be conducted between Tuesday 4 December and Tuesday 18 December.
- Fill septic system channels and compact. To be conducted between Wednesday 5 December and Wednesday 19 December.

Phase 3 – Planting and Landscaping

- Construct channels for stream through resort. To be conducted between Monday 7 January and Wednesday 14 January.
- Install granite boulders in channels. To be conducted between Monday 14 January and Monday 21 January.
- Excavate main channel from stream. To be conducted between Monday 21 January and Thursday 24 January.
- Construct weir. To be conducted between Thursday 24 January and Thursday 31 January.
- Construct drainage at bottom of channels. To be conducted between Thursday 31 January and Thursday 7 February.
- Testing and troubleshooting. To be conducted between Friday 8 February and Wednesday 13 February.
- Expand car park. To be conducted between Monday 7 January and Thursday 10 January.
- Move gravel to car park. To be conducted between Thursday 10 January and Tuesday 15 January.
- Seal car park. To be conducted between Tuesday 15 January and Thursday 17 January.
- Add boulders to landscaping around chalets. To be conducted between Monday 11 February and Monday 18 February.

Collateral Services Required of Vendor (e.g., performance reporting, post-project operational support, etc.):

Vendor to work closely with the site supervisor who will do all reporting.

No post-operational support or warranties apply beyond the end of the project.

Cost Parameters:

Phase 1 payment : \$26,950 labour.

Phase 2 payment: \$32,000 labour.

Phase 3 payment: \$31,900 labour plus \$5000 materials.

Appendix 33 - Statement of Work – Earthmoving Logistics

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by: Sam Ng, Awesome Landscapes
Date: 8 May 2016
Vendor Name:
Description of Deliverables or Procurement Items (in as much detail as needed to accurately define the proposed work): Phase 1 – Pre-building • Delivery of all landscaping equipment. ○ Collecting landscaping tools from Awesome headquarters. ○ Delivery of landscaping tools to the site. • Delivery and erection of glasshouse. ○ Sourcing and purchasing glasshouse. ○ Transport of glasshouse to site. ○ Construction of glasshouse on site. • Delivery of all onsite vehicles for the project. ○ Collection of landscaping vehicles from Awesome headquarters. ○ Delivery of landscaping vehicles to the site. • Delivery of road gravel ○ Sourcing and purchasing road gravel. ○ Delivery of road gravel to site. • Delivery of all granite boulders used in the landscaping. ○ Sourcing and purchasing granite boulders from local quarry. ○ Delivery of granite boulders to site. Phase 2 – Building Support • Nil Phase 3 – Planting and Landscaping • Dismantling and removal of greenhouse. ○ Dismantling greenhouse. ○ Removal and disposal of all building materials. • Removal of equipment. ○ Removal of all tools back to Awesome headquarters. ○ Removal of all onsite vehicles back to Awesome headquarters. ○ Removal and disposal of all landscaping waste from site.
Required Timeline and Milestone Dates: Phase 1 – Pre-building

- Delivery of all landscaping equipment – To be on site by Wednesday 8 August 2016.
- Delivery and erection of glasshouse – To be delivered onsite by Wednesday 8 August and erected by Monday 13 August.
- Delivery of all onsite vehicles for the project – To be delivered between Monday 27 August and Monday 3 September.
- Delivery of road gravel – To be delivered between Thursday 9 August and Monday 13 August.
- Delivery of all granite boulders used in the landscaping – To be delivered between Monday 27 August and Monday 3 September.

Phase 2 – Building Support

- Nil

Phase 3 – Planting and Landscaping

- Dismantling and removal of greenhouse. To be conducted between Friday 8 March and Tuesday 12 March.
- Removal of equipment. To be conducted between Friday 8 March and Tuesday 12 March.

Collateral Services Required of Vendor (e.g., performance reporting, post-project operational support, etc.):

Vendor to provide confirmation of delivery date of each deliverable two weeks in advance.

Cost Parameters:

Phase 1 payment: \$12,600 procurement labour, materials \$135,580.

Phase 3 payment: \$2,500 procurement labour.



Appendix 34 - Procurement Management Planning

Checklist Template

Project Name: Cascade Peak Chalets Landscaping Project		
Prepared by:		
Date:		
Identify types of contracts being used:		
Independent estimates required?	Yes	No
If Yes, who will prepare?		
By when?		
Actions that Project Management Team can take independent of Procurement Department:		
Source of standardized procurement documents, if needed:		
How will multiple providers be managed?		
How will you coordinate Procurement with the following aspects of the project?		
Scheduling		
Performance Reporting		
Human Resources		
Other		

Appendix 35 - Work Authorisation Form Template

Project Name: <i>Cascade Peak Chalets Landscaping Project</i>			
Prepared by: <i>Sam Ng, Awesome Landscapes</i>			
Date:			
Specific Activity or Work Package:			
The commencement of the above Project Activity or Work Package is hereby authorised, to begin on:			
Remarks or special issues to be addressed:			
Authorising Person(s):			
Name:	Title:	Date:	
Name:	Title:	Date:	
Person(s) receiving this authorisation form:			
Name:	Title:	Date:	Rec'd (initial):
Name:	Title:	Date:	Rec'd (initial):
Name:	Title:	Date:	Rec'd (initial):

Appendix 36 - Quality Audit Template

Project Name: <i>Cascade Peak Chalets Landscaping Project</i>		
Prepared by:		
Date:		
Project Manager: <i>Sam Ng, Awesome Landscapes</i>		
Project Phase:	Overall Project Status:	
Audit Date:	Audit Number:	Audit Leader:
Audit Team:		
Goal(s) of This Specific Audit:		
Audit of Management of Project:		
1. (required project objective #1)	Assessment:	Comment:
2. (required project objective #2)	Assessment:	Comment:
3. (required project objective #3)	Assessment:	Comment:
4. (required project objective #4)	Assessment:	Comment:
n. (required project objective #n)	Assessment:	Comment:
Overall Assessment of Management of Project:		
Recommended Action(s)/Lessons Learned Regarding Management of the Project:		
1.		
2.		
3.		



Audit of the Product of the Project:			
1. (required product characteristic #1)	Assessment:	Comment:	
2. (required product characteristic #2)	Assessment:	Comment:	
3. (required product characteristic #3)	Assessment:	Comment:	
4. (required product characteristic #4)	Assessment:	Comment:	
n. (required product characteristic #n)	Assessment:	Comment:	
Overall Assessment about the Product of the Project:			
Recommended Action(s)/Lessons Learned Regarding the Product of the Project:			
1.			
2.			
3.			
Additional Audit Comments:			
1.			
2.			
3.			
Have you attached additional material(s)?		☐	☐
		yes	no
Name(s) of attachment(s):			
1.			
2.			
Audit Report Submitted To:			Date:

Appendix 37 - Change Register

Request No.	Date	Originator	Brief Description	Responsibility	Timeframe	Completed

Appendix 38 - Project Change Request Template

Project Name: <i>Cascade Peak Chalets Landscaping Project</i>					
Prepared by:					
Date:					
Changes are being made to the following:					
	Project Charter		Project Management Approach		
	Scope Statement		Work Breakdown Structure		
	Performance Measurement Baselines		Major Milestones and Target Dates		
	Key Staff		Risk Management Plan		
	Scope Management Plan		Schedule Management Plan		
	Cost Management Plan		Quality Management Plan		
	Staffing Management Plan		Communications Management Plan		
	Risk Response Plan		Procurement Management Plan		
Type of change:					
	Scope		Time		Cost
	Communications		Resources		Risk
					Quality
					Procurement
Areas impacted:					
	Scope		Time		Cost
	Communications		Resources		Risk
					Quality
					Procurement
Changes to Supporting Detail? (explain):					
Description of Changes being made:					
1.					
<i>Risk Issues Prompting Changes:</i>					
<i>Corrective Action:</i>					
2.					
<i>Risk Issues Prompting Changes:</i>					
<i>Corrective Action:</i>					

3.

Risk Issues Prompting Changes:

Corrective Action:

Stakeholders being notified:

Name/Title: Susan Wills (Program Manager, Massive Eco-Development Corporation).	Signature:	Date:
Name/Title: Stephen Lyons (Planning Manager, Cascade Peaks Shire Council).	Signature:	Date:
Name/Title: Kim Nguyen (Director, Awesome Landscapes Pty Ltd).	Signature:	Date:

Appendix 39 - Project Status Report Template

Project Name: <i>Cascade Peak Chalets Landscaping Project</i>	
Prepared by: <i>Sam Ng, Awesome Landscapes</i>	
Date:	
Status of Project Relative to Project Objectives:	
Scope (On scope? If off scope, how serious?):	
Schedule (On schedule? Ahead or behind by how much, etc.):	
Cost (On budget? Under or over by how much, etc.):	
Quality:	
Communications:	
HR:	
Risk:	
Procurement:	
Integration:	
Progress Report: (what is completed, what is in process, key changes made, when and why, etc.)	
Forecasting: (estimate of future project status and progress)	
Other issues or comments:	
Issue:	Who Will Address:
Project Report Submitted to:	



Name:	Title:	Date:
Name:	Title:	Date:
Name:	Title:	Date:

Appendix 40 - Work Results Guidelines

Project Name: Cascade Peak Chalets Landscaping Project		
Prepared by:		
Date:		
Deliverable #1		
Completed as of Scheduled Date:		
Not completed as of Scheduled Date:		
Reason, if not completed		
Quality Standards:	Met	Not Met
Quality Issues		
Costs Incurred		
On Budget	Under Budget by	Over Budget by
Additional Remarks:		

Deliverable #2		
Completed as of Scheduled Date:		
Not completed as of Scheduled Date:		
Reason, if not completed		
Quality Standards:	Met	Not Met
Quality Issues		
Costs Incurred		
On Budget	Under Budget by	Over Budget by
Additional Remarks:		
Reported by	Date	

Appendix 41 - Lessons Learned Documentation Template

Project Name: Cascade Peak Chalets Landscaping Project										
Prepared by:										
Date:										
Lesson Learned Number:										
Lesson Learned Proposed Name:										
Project Team Role:										
Process Group:*	☐	Initiating	☐	Planning	☐	Executing	☐	Controlling	☐	Closing
Specific Project Management Process Being Used:										
Specific Practice, Tool or Technique Being Used:										
What was the action undertaken?										
What was the result?										
What might have been a more preferred result?										
What might have created the more preferred result?										
What is the specific Lesson Learned?										
How could one identify a similar situation in the future?										
What behaviour is recommended for the future?										
Where and how can this knowledge be used later in this current project?										
Where and how can this knowledge be used in a future project?										
Who should be informed about this Lesson Learned: (check one)										
☐	Executive(s)	☐	Project Manager(s)	☐	Project Team(s)	☐	All Staff			
☐	Other:									
How should this Lesson Learned be disseminated? (check all that apply)										
☐	e-mail	☐	Intranet/Web site	☐	Tip Sheet/FAQ	☐	Library			
☐	Other:									
Have you attached reference(s), example(s) and/or additional material(s)?						☐	yes	☐	no	
Name(s) of attachment(s):										
1.										
2.										

Appendix 42 - Project Completion Report Template

Project Name: Cascade Peak Chalets Landscaping Project		
Prepared by:		
Date:		
Project Summary		
Scope (what was included and excluded):		
Cost (Budget vrs actual):		
Time (Estimate vrs Actual):		
Project Report Submitted to:		
Name:	Title:	Date:
Name:	Title:	Date:
Name:	Title:	Date:

Analysis of Project

Scope

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.

Time

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.

Cost

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.

Quality

Process Review

Describe all of the processes used during the planning, implementation and closure stages.



Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.

Human Resources

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.

Communications

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.



Recommendations

Make recommendations as a result of the lessons learned.

Procurement

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.

Risk

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.



Project Integration

Process Review

Describe all of the processes used during the planning, implementation and closure stages.

Lessons Learned

Describe what went right, what went wrong and how effective was the management and the processes you used. If necessary, state how you overcame any problems.

Recommendations

Make recommendations as a result of the lessons learned.

Project Report Submitted to:		
Name:	Title:	Date:
Name:	Title:	Date:
Name:	Title:	Date:

Appendix 43 - Formal Acceptance and Closure Template

Project Name: Cascade Peak Chalets Landscaping Project	
Prepared by:	
Date:	
Name of Client or Sponsor:	
Statement of Formal Acceptance:	
The undersigned formally accept as complete the above-identified project, and do hereby state that this project, project phase, or major deliverable meets or exceeds agreed-upon performance standards for scope, quality, schedule, and cost, and state that we have seen documentation that all relevant legal and regulatory requirements have been met or exceeded.	
Additional Remarks:	
Accepted by (name of client, sponsor, or other official)	Date
Accepted by (name of client, sponsor, or other official)	Date
Accepted by (name of client, sponsor, or other official)	Date
Signed form distributed to:	
Stakeholder name	Date
Stakeholder name	Date
Stakeholder name	Date



Appendix 44 - Project Archives Checklist Template

Project Name: Cascade Peak Chalets Landscaping Project
Prepared by:
Date:

Project Documents Located:	Indexed	Submitted for Archives	Date	Comments	Initials

[illegible]



Project Documents Located:	Indexed	Submitted for Archives	Date	Comments	Initials