

# **Project Plan**

**for**

# **Sydney Wildlife Rescue and Care App**

**Version 3.0 approved**

**Prepared by Sam Turner and Andrew Bryant**

**Macquarie University PACE Group 9**

**27 May 2016**

## Table of contents

Revision History.....	2
1. Introduction.....	3
1.1.Purpose of Plan.....	3
1.2.Background Information/Available Alternatives.....	3
1.3.Scope and expectations.....	3
1.4.Items beyond scope.....	4
2. Development Risks and their management.....	4
2.1.Project Risk Assessment.....	4
2.2.Risk Rating Methodology.....	4
2.3.Risk Identification.....	5
2.4.Operational Risks.....	5
2.5.Miscellaneous Risks.....	6
3. Schedule.....	8
3.1.Gantt Chart.....	8
3.2.Timeline.....	9
3.3.Tasks and Deliverables.....	10
3.4.Network Diagram.....	11
3.5.Resource/task allocations.....	12
4. Project Resources.....	14
4.1.People.....	14
4.2.Hardware.....	14
4.3.Software.....	15
4.4.Other Resources.....	15
5. Organisation – group roles and responsibilities.....	15
6. Tracking, communication and quality control mechanisms.....	16
6.1.Tracking and documentation.....	16
6.2.Communication.....	16
6.3.Quality Control Mechanism.....	17
6.4.Quality Methodology.....	18
7. Prototype Demonstration.....	18
8. Glossary.....	19

## Revision History

Name	Date	Reason For Changes	Version
Andrew	2/5/16	Fixed errors, updated charts	V2.0
Andrew	27/5/16	Updated charts, prototype demonstration	V3.0

# 1. Introduction

## 1.1. Purpose of Plan

This project plan will provide a definition of the project, including the project's objectives. This plan also has the purpose of a textual agreement between the students managing & accomplishing the project, and the client sponsor. It serves as a base standard that can be mutually agreed upon, and referred to later in the development lifecycle. This plan will outline the following:

- Project purpose
- Scope and expectations
- Sponsor's requirements to be fulfilled by the project
- Development risks and their management
- Schedule
- Project resources
- Organisation
- Responsibilities
- Project Tracking
- Communication
- Quality control

## 1.2. Background Information / Available Alternatives

This project has already been subjected to a feasibility study. This study found the suggested solution out-ways the benefits of both not changing the system, and other solutions found. The recommended solution was alternative 6, a web based decision tree application. Other alternatives that were discounted included:

- No change to system
- Decision tree application specifically for IOS
- Decision tree application specifically for Android
- Decision tree application developed on both Android and Apple Platforms
- Development of new paper form for data entry

## 1.3. Scope and Expectations

The team has agreed upon the following as a minimum function this project will achieve.

1. The project will introduce a new method for Sydney Wildlife members to submit rescued animal information. This information will consist of the required information from the National Parks, but also tracking data for Sydney Wildlife's studies. These systems may be separated as the required data for National Parks only needs to be submitted once, however the tracking data will need to be updated over time.
2. The project also requires a decision tree application whereby carers and rescuers can refer once they have found an injured or distressed wild animal. The decision tree application will provide guidance as to how to handle this animal by answering a series of questions. The application will then recommend the required action, and provide relevant information such as contact details.

The following is additional features that have been requested and noted. However, they are subject to team recourses and schedule, and are not guaranteed to be implemented.

1. The required data will be an e-form, however the tracking data may be developed into an application.

2. The decision tree application may require the Sydney wildlife staffs to be able to construct these decision trees in an easy WYSIWYG editor, which would then be available for rescuers to use.

#### 1.4. Items Beyond Scope

The introduction of any further major or minor product feature requests after this point in time by the client, or team members will be at the complete discretion of the team leader. In this case the leader will need to assess the remaining available resources and schedule of the task to determine if such a new feature will be implemented. Under no circumstances is the team required to accept the changes.

Also, any features that have been agreed upon until this point in time are subject to team resources and schedule, and will have priority over secondary features.

## 2. Development Risks and Their Management

### 2.1. Project Risk Assessment

The risk factors and the tracking mechanisms are as follows.

The client is assumed to be inexperienced with computers. Therefore, special attention should be paid to the analysis workflow and communication with the client. The product has to be made as user-friendly as possible.

Because of the ever-present possibility of a major design fault, extensive testing will be performed during the design workflow. Also, each of the team members will initially test his or her own code and then test the code of another member.

### 2.2. Risk Rating Methodology

Methodology used to perform this risk analysis has primarily been qualitative. This involves assessing the likelihood and magnitude as a priority.

Probability and impact matrix has been used to represent the level of risk.

Rating	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
<b>Almost certain</b> -controls unsatisfactory to mitigate the risk	High	High	Extreme	Extreme	Extreme
<b>Likely</b> -Controls inadequate to mitigate the risk and require improvement	Medium	High	High	Extreme	Extreme
<b>Possible</b> -Controls reasonable / adequate to mitigate the risk but may still require improvement	Low	Medium	High	Extreme	Extreme
<b>Unlikely</b> -Controls robust and adequate to mitigate the risk	Low	Medium	Medium	High	Extreme
<b>Rare</b> -Controls strong to mitigate the risk	Low	Low	Medium	High	High

### 2.3.Risk Identification

The identification of the risks has been conducted by having brainstorming sessions with our development team, users and stakeholders.

For the scope of the project this type of risk assessment identification has achieved the desired risk mitigation strategy which is risk avoidance. Risk avoidance is the primary strategy decided upon through our brainstorming. With qualitative assessment we have been able to eliminate potential risks. It is possible with good controls and communication to eliminate mostly all hazards on this project.

### 2.4.Operational Risks

Risk No.	Risk Summary	Description	Preliminary Risk Rating	Risk Mitigation Description	Residual Risk Rating
1	Technology risk	Is the project technically feasible	High	Communication with programmers with regards to scope management	Low
2	People risk	Do we have the skills in the team	Medium	Successfully identify skills within the team to implement functional requirements	Low
3	Process Risk	The degree of change that the system will bring about negatively affect organiations	Extreme	We are going to communicate with stakeholders achieving success through successful testing and user acceptance	Low

## 2.5. Miscellaneous Risks

Risk No.	Risk Summary	Description	Preliminary Risk Rating	Risk Mitigation Description	Residual Risk Rating
4	User involvement	The degree of involvement of end users in the development cycle.  *Difficulty aligning schedules to have consistent meaning for feedback.	Extreme	Regular meetings with the user notes and comments registered.  *Have meaningful agendas to avoid time wastage at meetings, making sure priorities are met.	Medium
5	Scope creep	The statement of requirements changing	Medium	Agile methodology, must have requirements implemented as a priority. Thorough communication with stakeholders	Low
6	Project milestones	Size project milestones	High	Realistic project deliverables set out with smaller milestones	Low
7	Documentation	Reporting formats and processes for documentation	Extreme	We have trained the team and subscribed to Atlassian to manage our documentation process and communication	Low
8	Risk auditing	How will risk management process be audited	High	Our team leader and assistant are administrators on our Atlassian page. Schedules and updates are emailed to the team leaders. We have a project campaign	Low

Changes since V1.0 includes:

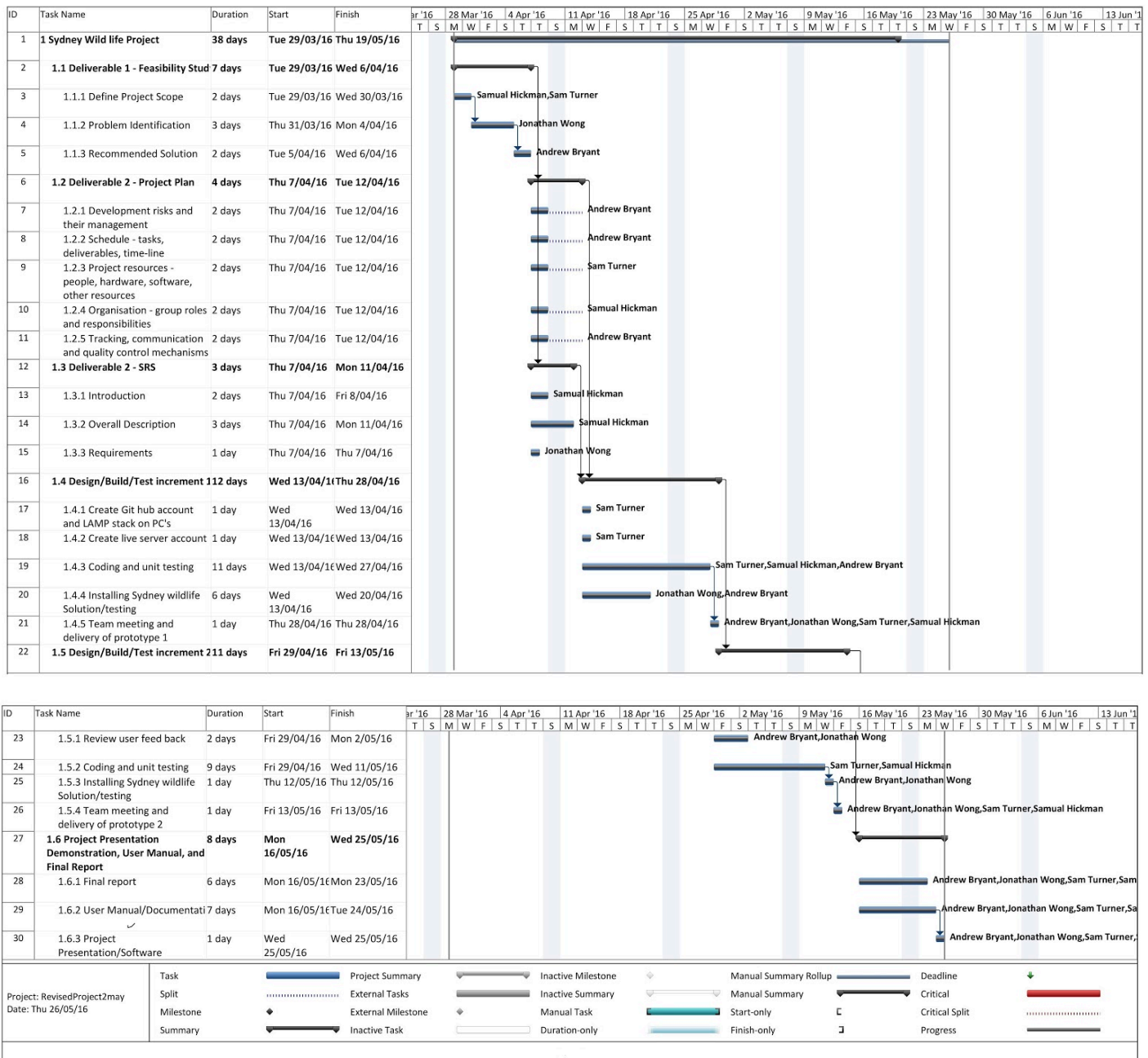
- New risks identified and new risk mitigation strategy

The process of integrating the information system with the existing website encountered some need for change. The existing business process for admitting a new animal into the system included gathering the details of the incident and animal, registering them in a new record along with the incident location. The location is the used in a Geobatch program which is an off the self location based resource database. The user can input the location and the available carers are selected for the administrator to contact. The system users expressed their satisfaction with the Geobatch program and would like see its usage continue as it speeds up the carer contact process. Our system will have to complement this plug in feature.

There are no structural changes to the project team that could be reflected in our risk mitigation strategy. Requirement changes have been managed early enough through our sponsor meetings. The identified changes in requirements have been updated in the revised requirements document and prototype meets sponsor satisfaction in terms of ease of use and integration with existing features. The change management process to reduce risk of the project not being accepted by the business unit for Sydney wildlife has been mitigated through negotiation of system requirements. We will work towards users continuing to use features they are comfortable with and build upon them with new efficiencies through our database record and information system. For example the Geobatch program is a standalone system which requires more work to maintain as it is not part of the central database. For this iteration to be successful we need to have user satisfaction and sponsor satisfaction, we will focus on delivering value to the customer. A location based look up application can be added as a feature at a later stage centralising the data structures for improved updating and deleting of records.

### 3. Schedule

#### 3.1. Gantt Chart



#### V1.0 changes:

- Highlighted in yellow sections indicate changes to task
- Tasks that have been completed have been crossed out
- Critical task for completion are now in red

#### V2.0 changes:

- The task deliverables have resource assignments
- Tasks that have been completed have been crossed out



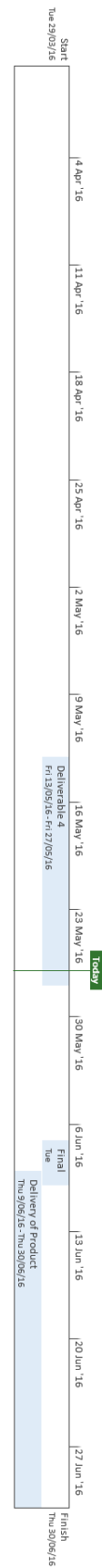
### 3.2. Timeline

V1.0 changes:

- Revised time line shows the current position in relation to the project with respect to the 25 April

V2.0 changes:

- Revised time line shows the current position in relation to the project with respect to the 25 May

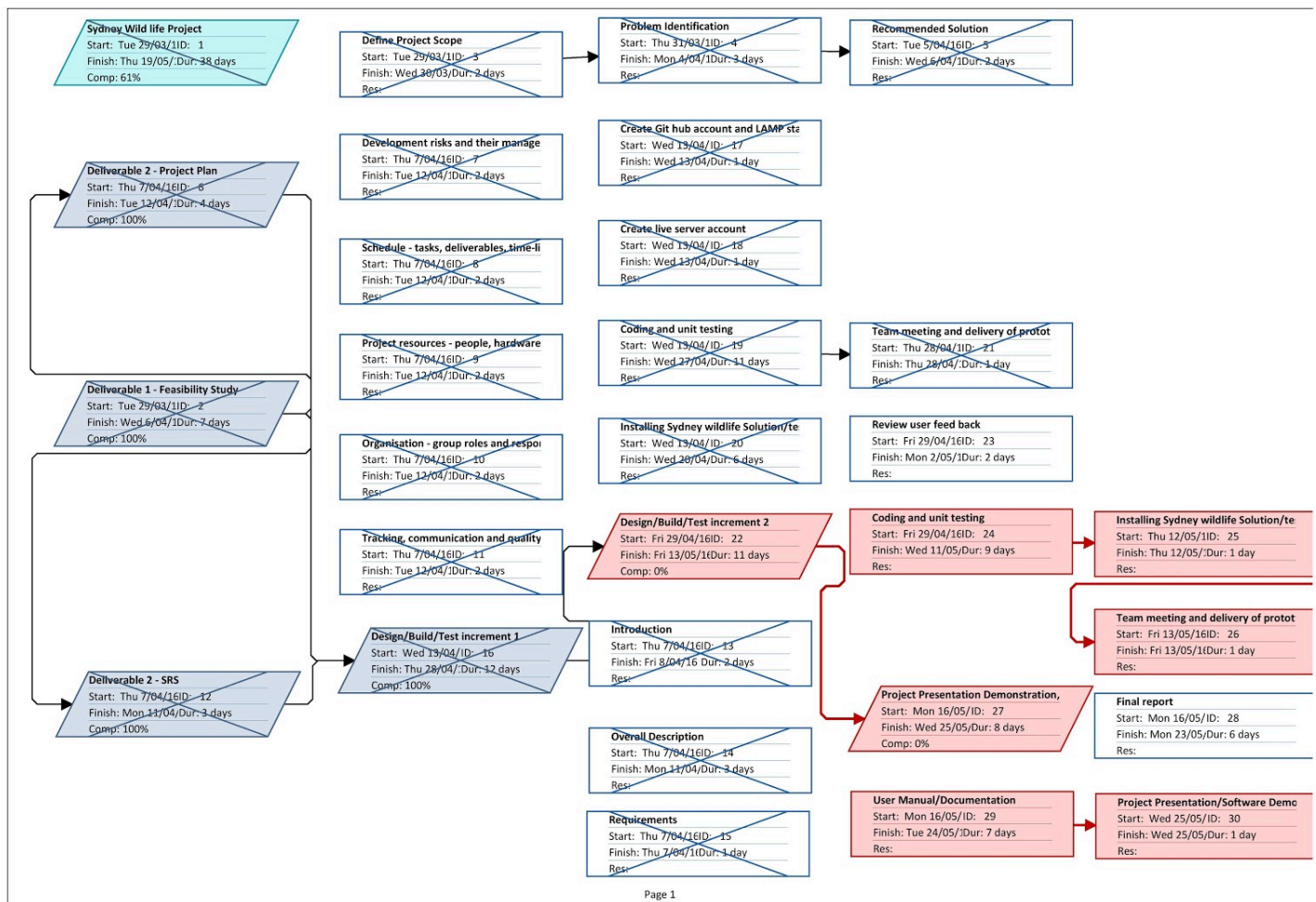


## 3.3.Tasks and Deliverables

Task Name	Start	Finish	Late Start	Late Finish	Free Slack	Total Slack
Sydney Wildlife Project	Thu 3/03/16	Tue 7/06/16	Thu 3/03/16	Tue 7/06/16	0 days	0 days
Deliverable 1 - Feasibility Study	Thu 3/03/16	Mon 14/03/16	Thu 3/03/16	Mon 14/03/16	0 days	0 days
Define Project Scope	Thu 3/03/16	Fri 4/03/16	Thu 3/03/16	Fri 4/03/16	0 days	0 days
Problem Identification	Mon 7/03/16	Thu 10/03/16	Mon 7/03/16	Thu 10/03/16	0 days	0 days
Recommended Solution	Fri 11/03/16	Mon 14/03/16	Fri 11/03/16	Mon 14/03/16	0 days	0 days
Deliverable 2 - Project Plan	Tue 15/03/16	Wed 30/03/16	Tue 15/03/16	Wed 30/03/16	0 days	0 days
Development risks and their management	Tue 15/03/16	Thu 17/03/16	Mon 28/03/16	Wed 30/03/16	9 days	9 days
Schedule - tasks, deliverables, time-line	Tue 15/03/16	Mon 21/03/16	Tue 15/03/16	Mon 21/03/16	0 days	0 days
Project resources - people, hardware, software, other resources	Mon 28/03/16	Wed 30/03/16	Mon 28/03/16	Wed 30/03/16	0 days	0 days
Organisation - group roles and responsibilities	Tue 22/03/16	Fri 25/03/16	Tue 22/03/16	Fri 25/03/16	0 days	0 days
Tracking, communication and quality control mechanisms	Tue 15/03/16	Wed 16/03/16	Tue 29/03/16	Wed 30/03/16	10 days	10 days
Deliverable 2 - SRS	Tue 15/03/16	Mon 28/03/16	Thu 17/03/16	Wed 30/03/16	2 days	2 days
Introduction	Tue 15/03/16	Mon 21/03/16	Thu 17/03/16	Wed 23/03/16	0 days	2 days
Overall Description	Tue 22/03/16	Wed 23/03/16	Thu 24/03/16	Fri 25/03/16	0 days	2 days
Requirements	Thu 24/03/16	Mon 28/03/16	Mon 28/03/16	Wed 30/03/16	2 days	2 days
Design/Build/Test increment 1	Thu 31/03/16	Mon 2/05/16	Thu 31/03/16	Mon 2/05/16	0 days	0 days
Create Github account and LAMP stack on PC's	Thu 31/03/16	Fri 1/04/16	Fri 1/04/16	Mon 4/04/16	1 day	1 day

Create live server account	Thu 31/03/16	Mon 4/04/16	Thu 31/03/16	Mon 4/04/16	0 days	0 days
Coding and unit testing	Tue 5/04/16	Fri 22/04/16	Tue 5/04/16	Fri 22/04/16	0 days	0 days
Installing Sydney wildlife Solution/testing	Mon 25/04/16	Fri 29/04/16	Mon 25/04/16	Fri 29/04/16	0 days	0 days
Team meeting and delivery of prototype 1	Mon 2/05/16	Mon 2/05/16	Mon 2/05/16	Mon 2/05/16	0 days	0 days
Design/Build/Test increment 2	Tue 3/05/16	Fri 27/05/16	Tue 3/05/16	Fri 27/05/16	0 days	0 days
Review user feedback	Tue 3/05/16	Thu 5/05/16	Tue 3/05/16	Thu 5/05/16	0 days	0 days
Coding and unit testing	Fri 6/05/16	Fri 20/05/16	Fri 6/05/16	Fri 20/05/16	0 days	0 days
Installing Sydney wildlife Solution/testing	Mon 23/05/16	Wed 25/05/16	Mon 23/05/16	Wed 25/05/16	0 days	0 days
Team meeting and delivery of prototype 2	Thu 26/05/16	Fri 27/05/16	Thu 26/05/16	Fri 27/05/16	0 days	0 days
Project Presentation Demonstration, User Manual, and Final Report	Mon 30/05/16	Tue 7/06/16	Mon 30/05/16	Tue 7/06/16	0 days	0 days
Final report	Mon 30/05/16	Mon 6/06/16	Tue 31/05/16	Tue 7/06/16	1 day	1 day
User Manual/Documentation	Mon 30/05/16	Tue 7/06/16	Mon 30/05/16	Tue 7/06/16	0 days	0 days
Project Presentation/Software Demonstration	Mon 30/05/16	Mon 30/05/16	Tue 7/06/16	Tue 7/06/16	6 days	6 days

## 3.4. Network Diagram



Page 1

V1.0 changes:

- Revised network diagram now has critical task highlighted in red and the completed task crossed out

## 3.5.Resource/Task Allocations

Who Does What as of Thu 26/05/16  
Sydney Wildlife May

ID	Indicators	Resource Name	Work
1		Andrew Bryant	216 hrs
	ID	Task Name	Units Work Delay Start Finish
	5	Recommended Solution	100% 16 hrs 0 days Tue 5/04/16 Wed 6/04/16
	7	Development risks and their management	100% 16 hrs 0 days Thu 7/04/16 Fri 8/04/16
	8	Schedule - tasks, deliverables, time-line	100% 16 hrs 0 days Thu 7/04/16 Fri 8/04/16
	11	Tracking, communication and quality control mechanisms	100% 16 hrs 0 days Thu 7/04/16 Fri 8/04/16
	19	Coding and unit testing	100% 0 hrs 11 days Wed 27/04/16 Wed 27/04/16
	20	Installing Sydney wildlife Solution/testing	100% 0 hrs 6 days Wed 20/04/16 Wed 20/04/16
	21	Team meeting and delivery of prototype 1	100% 8 hrs 0 days Thu 28/04/16 Thu 28/04/16
	23	Review user feed back	100% 16 hrs 0 days Fri 29/04/16 Mon 2/05/16
	25	Installing Sydney wildlife Solution/testing	100% 8 hrs 0 days Thu 12/05/16 Thu 12/05/16
	26	Team meeting and delivery of prototype 2	100% 8 hrs 0 days Fri 13/05/16 Fri 13/05/16
	28	Final report	100% 48 hrs 0 days Mon 16/05/16 Mon 23/05/16
	29	User Manual/Documentation	100% 56 hrs 0 days Mon 16/05/16 Tue 24/05/16
	30	Project Presentation/Software Demonstration	100% 8 hrs 0 days Wed 25/05/16 Wed 25/05/16
2		Sam Turner	264 hrs
	ID	Task Name	Units Work Delay Start Finish
	3	Define Project Scope	100% 0 hrs 2 days Wed 30/03/16 Wed 30/03/16
	9	Project resources - people, hardware, software, other resources	100% 16 hrs 0 days Thu 7/04/16 Fri 8/04/16
	17	Create Git hub account and LAMP stack on PC's	100% 8 hrs 0 days Wed 13/04/16 Wed 13/04/16
	18	Create live server account	100% 8 hrs 0 days Wed 13/04/16 Wed 13/04/16
	19	Coding and unit testing	100% 88 hrs 0 days Wed 13/04/16 Wed 27/04/16
	21	Team meeting and delivery of prototype 1	100% 8 hrs 0 days Thu 28/04/16 Thu 28/04/16
	24	Coding and unit testing	100% 72 hrs 0 days Fri 29/04/16 Wed 11/05/16
	26	Team meeting and delivery of prototype 2	100% 8 hrs 0 days Fri 13/05/16 Fri 13/05/16
	28	Final report	100% 48 hrs 0 days Mon 16/05/16 Mon 23/05/16
	29	User Manual/Documentation	100% 0 hrs 7 days Tue 24/05/16 Tue 24/05/16
	30	Project Presentation/Software Demonstration	100% 8 hrs 0 days Wed 25/05/16 Wed 25/05/16
3		Jonathan Wong	232 hrs
	ID	Task Name	Units Work Delay Start Finish
	4	Problem Identification	100% 24 hrs 0 days Thu 31/03/16 Mon 4/04/16
	15	Requirements	100% 8 hrs 0 days Thu 7/04/16 Thu 7/04/16
	20	Installing Sydney wildlife Solution/testing	100% 48 hrs 0 days Wed 13/04/16 Wed 20/04/16
	21	Team meeting and delivery of prototype 1	100% 8 hrs 0 days Thu 28/04/16 Thu 28/04/16
	23	Review user feed back	100% 16 hrs 0 days Fri 29/04/16 Mon 2/05/16
	25	Installing Sydney wildlife Solution/testing	100% 8 hrs 0 days Thu 12/05/16 Thu 12/05/16
	26	Team meeting and delivery of prototype 2	100% 8 hrs 0 days Fri 13/05/16 Fri 13/05/16
	28	Final report	100% 48 hrs 0 days Mon 16/05/16 Mon 23/05/16
	29	User Manual/Documentation	100% 56 hrs 0 days Mon 16/05/16 Tue 24/05/16
	30	Project Presentation/Software Demonstration	100% 8 hrs 0 days Wed 25/05/16 Wed 25/05/16
4		Samual Hickman	216 hrs
	ID	Task Name	Units Work Delay Start Finish
	3	Define Project Scope	100% 16 hrs 0 days Tue 29/03/16 Wed 30/03/16
	10	Organisation - group roles and responsibilities	100% 16 hrs 0 days Thu 7/04/16 Fri 8/04/16

Who Does What as of Thu 26/05/16  
Sydney Wildlife May

ID	Indicators	Resource Name	Work			
"Samual Hickman" continued						
ID	Task Name	Units	Work	Delay	Start	Finish
13	Introduction	100%	16 hrs	0 days	Thu 7/04/16	Fri 8/04/16
14	Overall Description	100%	24 hrs	0 days	Thu 7/04/16	Mon 11/04/16
19	Coding and unit testing	100%	0 hrs	11 days	Wed 27/04/16	Wed 27/04/16
21	Team meeting and delivery of prototype 1	100%	8 hrs	0 days	Thu 28/04/16	Thu 28/04/16
24	Coding and unit testing	100%	72 hrs	0 days	Fri 29/04/16	Wed 11/05/16
26	Team meeting and delivery of prototype 2	100%	8 hrs	0 days	Fri 13/05/16	Fri 13/05/16
28	Final report	100%	48 hrs	0 days	Mon 16/05/16	Mon 23/05/16
29	User Manual/Documentation	100%	0 hrs	7 days	Tue 24/05/16	Tue 24/05/16
30	Project Presentation/Software Demonstration	100%	8 hrs	0 days	Wed 25/05/16	Wed 25/05/16

## 4. Project Resources

This project will employ a number of resources to ensure the goals are met. These resources include people, hardware and software.

### 4.1. People

The development team consists of four members:

- **Samuel Hickman** – Group Leader / Tech Head
- **Jonathan Wong** – Tester / Documenter / University Deliverables Manager
- **Sam Turner** – Admin Leader / Project Manager / 1st Tech Assist
- **Andrew Bryant** – Documenter / 2nd Tech Assist

### 4.2. Hardware

The primary hardware that will be used for this project are the team member's personal computers. This allows working from any location, either off or online.

The Macquarie computer labs may also be used as it is convenient when members are on campus, and they may have specialized software that is required to complete the tasks. The team may also in the future use a server to test, administer and prototype the product. This server will be setup by a team member.

Later during the implementation stage, the hardware at Sydney Wildlife may be used for testing and deployment.

### 4.3. Software

There will be many software products used throughout the SDLC.

- PowerDesigner will be used during the design phase to design processes and database schemas. Wireframe software will also be used to develop and design the UI of the application.
- During the implementation phase (coding) a number of software products could be used. This includes code editors such as sublime text and dreamweaver. Graphics creation and editing software such as adobe illustrator and photoshop will also be used.
- An SQL server will be needed for the project, so a software package such as PHPMyAdmin will also be used.

The testing and usage phase will mostly use a number of different web browsers to perform testing as a regular user would. This includes Mozilla Firefox, Internet Explorer, Google Chrome and Safari.

### 4.4. Other Resources

Another resource we have been using is the Atlassian's software packages confluence and jira. Confluence is a platform for communication, administration and documentation for the team.

The Jira software provides project management and agile development tracking tools which can be linked to code been written. It provides great tools for agile development as it has a function to add 'user stories' and other agile concepts into a versatile, collaborative project management software package.

These software packages are not usually free, however we successfully applied for a free community license based on the non for profit status of our client, Sydney Wildlife.

## 5. Organisation – Group Rules and Responsibilities

**Samuel Hickman** – Group Leader / Tech Head

- Samuel's role as group leader is to ensure the team is functioning well, schedule is kept, deadlines met, and will have final decision power. He is ultimately responsible for the team as a whole.
- His second role as tech head is to be the primary contact for the technical development of the project. He will work closely with Sam (tech assist) to do the actual coding and construction of the project.

**Jonathan Wong** – Tester / Documenter / University Deliverables Manager

- The tester role will be responsible for testing developed products and ensuring quality control. This person will use the project both how it is expected to be used by the client, but also how it should not be used to ensure a stable product. He will report these findings to the tech head.
- The documenter is responsible for assisting the documentation team to ensure all documentation is correctly written up in a timely manner, and follows standards.
- The university deliverables manager is responsible for university deliverables and submission deadlines. This person will report to iLearn on a weekly basis the progress of the team, and also assist in writing up the team's meeting minutes.

**Sam Turner** – Admin Leader / Project Manager / 1st Tech Assist

- The admin leader's role is to organise the group's communication, collaboration and documentation management. This entails providing a communication platform for the team to work effectively, scheduling meetings and assigning roles.

- The project manager role is responsible for the schedule of the project. This person will track the progress of all tasks, and provide tracking tools for the team to use. This person will be largely responsible for meeting deadlines for the project.
- The 1st tech assist role was assigned to Sam since he was determined to have the second most experiences with technical development. He will work closely with and assist the tech head in tasks that need to be completed.

**Andrew Bryant** – Documenter / 2nd Tech Assist

- The documenter is responsible for the documentation. This person will ensure all documentation is correctly written up in a timely manner, and follows standards.
- The 2nd tech assist will help the other two technical writers to complete the technical production of the project. This person may be assigned smaller tasks on a case-by-case basis.

## 6. Tracking, communication and quality control mechanisms

### 6.1. Tracking and Documentation

Tracking and document management will be carried out with the assistance of market leading project management software Atlassian. The confluence package will manage documents, group meeting schedules, minutes and client correspondence. All project information related to the project will be uploaded to Confluence. This will improve the quality of the end user documentation.

The JIRA package will provide the backbone for development of the project with all deliverables accounted for and tracked both programming and documentation tasks included. Quality controls can be efficiently administered by the group using this approach.

### 6.2. Communication

Team communication is managed through Atlassian confluence page and through an instant messaging application. Only minor communication is done on the messenger app. All project related communication is channeled through the Atlassian cloud software for increased accountability through the enhanced communication logging system the software offers.

All project documents relating to the project will be uploaded to Confluence. This will also improve the quality of the end user documentation. The team will meet at Macquarie University as this is the most central location.



Mon	Tue	Wed	Thu	Fri	Sat	Sun
25	26	27	28	29	30	1 8:00 AM Out Deadline for Increment 1
2 Increment 1 Due Updated SRS	3	4 11:30 AM Team Meeting E6A114	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19 Lecture	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

The calendar shows the recurring weekly meeting schedule all members are required to attend

### 6.3. Quality Control Mechanism

Quality will be managed through well organised process. The quality process for managing this project is an adaptive one early detection of deliverables not projecting towards completion due dates will be managed at an early intervals, an adaptive resource allocation and other strategies will be considered to meet the schedule . A process of communicating and systematically going through deliverables at our weekly meetings. Referencing our work breakdown structure document and keeping our timeline document up to date with special care taken to make sure critical task deadlines are kept according to our Gantt chart document.

Testing will to be done at every phase of the systems development life cycle as a quality control mechanism. A Github platform will be used to maintain versions and control programing tasks and approval of code implementation by head programmer. A staging server instance will set up for testing the first and second iterations.

Unit testing will be done on each individual module and function to make sure that the final product is defect free defect-free. Once the modules are tested and working integration testing will test the entire system on the staging server.

Once integrated the entire system will be tested as one entity. The system tests will ensure that the whole system is working as required.

Finally, our user acceptance testing will be conducted independently prior to accepting the delivered system. There will be time allocated for any minor changes in the system from client feedback, this time allowance is represented as slack in the deliverable schedule.

#### 6.4. Quality Methodology

The Iron triangle will be core to our quality methodology as quality is the core of the triangle. This approach will enable the team and its decision makers to make corrections in the SDLC and to make the correct decisions at project junctions. For example scope creep will be monitored and with the knowledge that excessive creep will reduce quality without more resources to counteract the extended scope. A “must have” then “should have” then “will have” approach to scope will also be core to our methodology. This will allow for the Agile project management methodology to succeed in project milestones in the first and second iterations of the project.



### 7. Prototype Demonstration

On the 1/5/16, we had a meeting with our sponsor in order to demonstrate our prototype to her. This prototype was a basic wireframe layout of both the website and decision tree, and contained basic architecture for our system. We made sure to thoroughly explain each part of the system, and discuss any changes or suggestions our sponsor brought up during the meeting. We felt the meeting went well, and received generally positive feedback from the sponsor in regards to our prototype.

In terms of attendance, three of our four group members were able to attend, with the last having work commitments that prevented him from attending.

On 26/5/16, we did another demonstration of our prototype to our sponsor, and all our group members were able to attend the meeting. The prototype we demonstrated was completely different to our first prototype. Screenshot of the new prototype can be viewed in the design documentation. In this demonstration, we presented the animal profiles. When new animal record forms are created, they will be displayed on this page. We also showed that database behind this function, storing all animal data.

The decision tree function was also demonstrated. It was developed with a service called Zingtree, it helps with making decision trees and can be easily managed by average computer users, although it has a monthly fee of \$10. Alternatively, the decision tree can be developed with javascript. The sponsor agreed to use the Zingtree service.

We also showed the scalability of the prototype, which is a webapp. The contents displayed in the webapp will reorganise automatically depending on the screen size, and hence the prototype will be fully functional on both smart phones and computers without extra input. The demonstration went really well. The prototype satisfied many of the requirements which the sponsor demanded. She liked what we had done so far and looked forward to the final product.

## 8. Glossary

**Atlassian** - project management software to maintain documentation and software version control

**Backbone** - The core of a system or process

**Confluence package** - part of a Atlassian software package to maintain documentation

**Iron triangle** - A term to describe fundamentals in project management objectives.

**JIRA** - part of Atlassian software package to maintain software versions

**Risk avoidance** - A strategy which attempts to not only mitigate risk but to avoid it entirely

**Scope creep** - undesirable situation whereby additional requirements are added

**SDLC** - System development life cycle

**Slack** - A term used in project management to define the amount of extra time available in a task