

Department of Conservation and Land Management



Reference Herbarium

User Pays report

by Terry Macfarlane, George Doust, Valerie Cave, Maria Duthie & Paul Gioia



CORPORATE EXECUTIVE SUMMARY SHEET

Department of Conservation and Land Management

Leadership and Organisation Development Program Reference Herbarium User Pays Project

ISSUE TO BE DISCUSSED

- Evaluation of attitudes to User Pays as a means for adequately resourcing the Reference Herbarium.
- Evaluation and implementation of User Pays Models.
- Identification of alternative options for resourcing both the Reference Herbarium and the wider WA Herbarium.

BACKGROUND SUMMARY/IMPORTANT ISSUES

Adequate resourcing and the support of high quality science are critical issues for the WA Herbarium. The Herbarium encourages a high degree of voluntary community participation (as well as dealing on a commercial basis with consultants), in line with the Department's corporate mission to conserve WA's biodiversity in partnership with the community. Increased costs and insufficient resources are threatening the viability of a number of services currently provided free of charge. This project examined the benefits and risks to conservation of implementing a User Pays system on one of those services, namely the Reference Herbarium.

The project team examined perceptions of the Reference Herbarium both internally and external to the Department. We sought feedback from other Herbaria, both nationally and internationally, about their charging practices and undertook a major survey of Reference Herbarium users. Furthermore, we undertook a full cost recovery analysis, based on Treasury guidelines.

CONCLUSIONS

Feedback from the vast majority of survey respondents demonstrated a clear need for the Reference Herbarium. It contributes strongly towards conservation of biodiversity; provides a focus point for the community to become concerned with and take responsibility for dealing with conservation issues. There is a strong sense of ownership of the Reference Herbarium within the community. Furthermore, support for the Reference Herbarium is generally accompanied by support for the wider WA Herbarium, and its role in conservation. Most respondents recognised that the WA Herbarium was significantly under-resourced, though few realised that support for the Reference Herbarium had been taken at the expense of the main collection. There was a strong view from many respondents that the Reference Herbarium should be adequately supported by the Department and funded from CRF.

Although there was broad opposition to charging for services currently provided free, commercial consultants and Departmental staff thought User Pays a valid strategy for gaining funding, though that cost should not be onerous. Most people, even those most strongly opposed to the principle of a User-Pays system, suggested that there should be a charge for botanists' time.

A number of factual errors by respondents were evident in survey results, largely as a result of misperceptions about the true cost of service provision and the role of volunteers. These findings support the need for a communications plan to be developed.

There are powerful emotional and symbolic reasons why access to the Reference Herbarium should remain free of charge. Many respondents were extremely disturbed at the prospect of having to pay for services which, in their perception, belonged to the public and should be provided free. In some cases they threatened to withdraw the donation of valuable specimens to the main collection. Charging may change the relationship between the Herbarium and the public as well as putting at risk other benefits such as volunteering.

It was identified that a significant educative role for the Reference Herbarium is possible through increased liaison with primary and secondary schools and TAFE colleges.



KEY RECOMMENDATIONS

- That the Department take into account the strong community feeling that it re-prioritise the Reference Herbarium to receive full government funding in recognition of its demonstrated benefit to conservation of biodiversity and extensive community involvement.
- In the absence of full funding, that User Pays principles be implemented in the following situations (acknowledging that, in general, modest charges cannot earn more than a small percentage of total costs, and the Reference Herbarium should be funded by Government in recognition of its benefit to the community).
 - Commercial consultants and other State Government Departments (as per Treasury guidelines) be charged 40% of full cost of operations (approximately \$36 per day) for use of Reference Herbarium facilities. This is considered a modest fee that should not substantially discourage use by these user groups.
 - Community groups, volunteers and private individuals, irrespective of affiliation, should not be charged for use of Reference Herbarium services.
 - For funded projects, Reference Herbarium services will only be available where there has been a formal arrangement reached with the WA Herbarium. This applies to all community groups and Departmental staff. Arrangements might involve, at the discretion of the Head of the Herbarium, a recognition of in-kind contribution of specimen vouchers. Alternatively, there might be a demonstration that specimen processing costs had been factored into proposed grants. The WA Herbarium its willingness to assist in the development of future grant proposals that achieve this.)
- There should be advance notice of six to twelve months before any User Pays plan is implemented.
- All non-self-help services, e.g. staff botanist's time should be charged at full cost recovery. There should be a minimum charge equal to half the hourly rate, irrespective of user, for advice or assistance of any kind.
- As a risk minimisation strategy, the WA Herbarium should develop, in consultation with Corporate Relations and Strategic Affairs Division, a Communications and Marketing plan to promote and publicise the Reference Herbarium and to ensure the successful implementation of the User Pays plan.





Department of Conservation and Land Management
Leadership and Organisation Development Program
Reference Herbarium User Pays Project

Final Report

by Terry Macfarlane, George Doust, Valerie Cave, Maria Duthie & Paul Gioia

August, 2001

Department Mission

In partnership with the community, we conserve Western Australia's biodiversity, and manage lands and waters entrusted to us, for the appreciation and benefit of present and future generations.

Quotable Quotes...

The reference herbarium provides a valuable community service, particularly in these times of increasing awareness of the value of our local flora.

This is a vital service to low funded and volunteer organisations, and interested amateurs.

...The facility is instrumental in providing information on rare species and hence provides a service to improve the knowledge of the State's biodiversity.

...The Reference Herbarium (and the Herbarium generally) does a magnificent job under such an intolerable funding situation.

...With the potential extinction of many of our plants due to salinity, water logging and climate change, it has never been more important to gather as much data as possible about our wonderful and unique flora.

It is a wonderful facility that should be maintained as it is.

Like so much of Conservation and Land Management, the building and grounds at the WA Herbarium are very shabby. ...It is only a matter of time before fire or some other calamity overtakes this unique and precious collection.

You shouldn't ask this question...



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2. Introduction

Adequate resourcing and the support of high quality science are critical issues for the Western Australian Herbarium. The Herbarium encourages a high degree of voluntary community participation (as well as dealing on a commercial basis with consultants), in line with the corporate mission *to conserve WA's biodiversity in partnership with the community*. Increased costs and insufficient resources are threatening the viability of a number of services currently provided free of charge. This project examined the benefits and risks to conservation of implementing a User Pays system on one of those services, namely the Reference Herbarium.

2.1. Intended Outcomes

The project identified six main objectives:

1. Identify current and potential benefits of the Reference Herbarium to conservation, to the community and to the WA Herbarium.
2. Evaluate attitudes to User Pays as a means for adequately resourcing the Reference Herbarium to protect and enhance its role in conservation.
3. Evaluate User Pays Models.
4. Provide a broad cost analysis for various proposed options of User Pays.
5. Identify, at a coarser level, alternative options for resourcing both the Reference Herbarium and the wider WA Herbarium.
6. Produce a report that outlines the actual outcomes, conclusions and tangible recommendations that ensure a continued focus on addressing the funding issues that face the WA Herbarium.

3. Strategies

Based on the LODP User Pays project definition (See Appendices, Section 6.1: User Pays project definition), a number of strategies were outlined to achieve our intended outcomes.

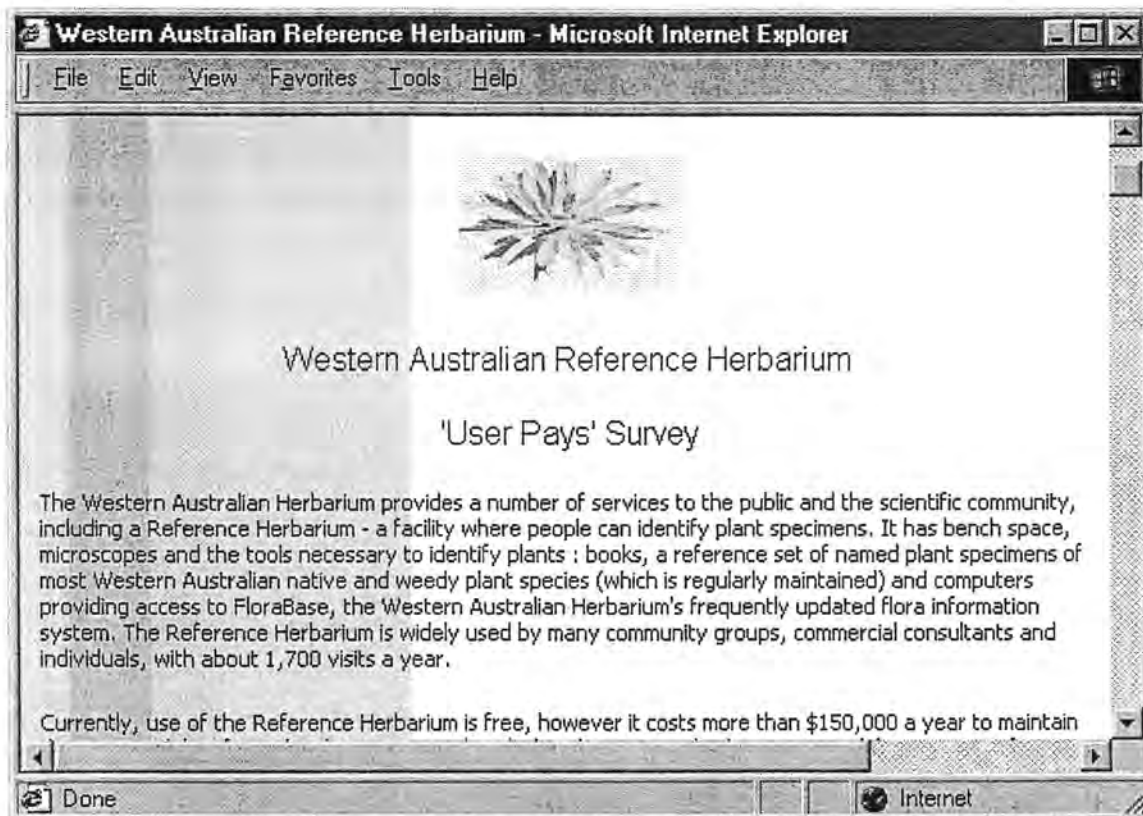
The project was conceived and developed using standard project management practices. A project timeline was developed using OnTarget project management software. This, in conjunction with an Excel spreadsheet for identifying goal achievement, served as a means for tracking progress. These documents are available on request.

The project team examined the benefits of the Reference Herbarium to conservation (Objective 1) from the perspective of Departmental staff. This was done through visiting the Herbarium and interviewing key staff, as well as developing specific questions for Departmental staff in other Divisions, including the Education Unit. We also examined visitation records for the Reference Herbarium and developed a user categorisation based on visitation during the previous three months.

As a basis for comparison, and the development of potential charging models, we sought feedback from other Herbaria, both nationally and internationally, about their charging practices. Furthermore, we undertook a full cost recovery analysis, based on treasure guidelines. This analysis took into account all costs involved in the ongoing maintenance of the Reference Herbarium, including physical costs such as building maintenance, but also staff and volunteer resource.

3.1. Web-based Survey

A key strategy in achieving many of our objectives was soliciting feedback from Reference Herbarium users through the design and implementation of an online survey form. Given the small time frame, it was important that the survey be made as easy to administer, and as accessible as possible. We designed a web-based form as well as produced a printed copy for those users not able to enter the information online.



3.2. Identified User Groups

To assist in analysing survey results it was very important to break down responses according to the type of usage. Some users were volunteers working on unfunded projects whilst others were commercial consultants using Reference Herbarium facilities as part of fulfilling contractual obligations.

User groups were identified based on visitation records over the previous three months. The current record system was not ideal for obtaining the necessary statistics and when a new registration system is developed, statistical needs should be taken into account. Given that the intention of the project was to assess the feasibility of a User Pays environment for the Reference Herbarium, the guiding principles for determining categories were a) ability to pay and b) intention to generate income from use of the services. The chosen categories were:

- Commercial consultants
- Departmental staff
- Academic / Researchers
- Community groups working on funded projects
- Community groups working on unfunded projects
- Other State Government departments
- Private / amateur use
- Regional Herbarium Volunteers
- Schools

There was also the capacity to enter *Other* in the event that a respondent could not identify with a category.

3.3. Team Process

An important part of the project was the team process. A number of measures were put in place to ensure we worked effectively and efficiently despite many pressures including annual leave, sickness, other job priorities etc. Two people were allocated per task in the event of member absence. All roles were explicitly allocated and a timeline supervisor kept track. Despite the suggestion of a two hour per week allocation to project activities, actual time spent was far in excess of that.

4. Actual Outcomes

Feedback was sought from a number of sources including specific interviews with selected Departmental staff, general surveys and correspondence with other Herbaria, nationally and internationally. The results of these interactions are summarised by project objectives, below.

4.1. Feedback from the Department's Western Australian Herbarium staff

A number of staff were interviewed before the survey and asked for their perception of how the Reference Herbarium operated and how they thought the Reference Herbarium benefited conservation. However, several key issues about its ongoing operation became evident.

- There was no specific funding allocated to run the Reference Herbarium. All costs were borne by the existing Herbarium CRF allocation. This had drawn resources away from the main collection, where resources were already at a premium. There seemed to be inadequate recognition by the Department of the valuable service the Reference Herbarium provided to the community, commercial consultants, Departmental staff, and the general public. This lack of support was symptomatic of lack of Departmental support for the Herbarium as a whole.
- A number of Herbarium staff supported the Reference Herbarium, directly through provision of botanical expertise or support of computer resources, or indirectly through the supervision of volunteers working in or supporting the Reference Herbarium.
- A substantial component of Reference Herbarium use came from commercial consultants and community groups working on funded projects. In the light of the Herbarium's poor funding, this was inequitable given that the services were being provided free of charge.
- Despite supportive statements from such groups recognising the need to voucher specimens, few did so. The Reference Herbarium was often used as a free identification service with relatively little flow-on of quality specimens into the main collection.
- In funded projects which involved lodging specimens into the main collection, there was rarely any allocation of resources for processing costs built into the grant. For some time the Herbarium has been encouraging those projects to factor in processing costs to the initial grant. To date, this request has met with little support from both grantees and grantors, though there are positive signs this attitude is gradually changing.
- Certain users responded that much of the activity in the Reference Herbarium was undertaken by volunteers and that requests for funding support were therefore inappropriate. However, there were a number of occasions where users wore conflicting hats. For example, some users worked as both consultants and volunteers. Other users described themselves as volunteers, yet worked on funded projects with substantial impact on staff botanists, with no allocation for processing costs being factored into the grant.

4.2. Feedback from the Department's Eco-education Unit staff

To help identify potential benefits we investigated potential user groups – groups not currently fully utilising the Reference Herbarium. We looked at schools to assess if they were such a group. We drafted and sent set questions to the Department's Eco-education Unit, which responded with valuable feedback.

They saw schools as a potential user group as many were already involved in revegetation or weed eradication programs in local bushland and nature reserves. Also many school students in the Department's Bushrangers program are already using the Reference Herbarium as part of their set activities. Project work activity sheets include titles such as 'Data collection and nature conservation field work', 'How to identify plants' and 'Herbaria: dead plants but vital systems'.

Funding was identified as an issue. Additional funding to develop, maintain and promote the schools program would be required. Such school programs are never self-funding. Fees for programs usually only cover the cost of a guide/leader interpreter for a day excursion. CALM Bush Rangers receive external funding for excursions and camps. This money can be used to get to a herbarium, go bush to get photos etc. There are now approx. 1200 Bushranger students.

It is not easy for the Department, being a Government agency, to obtain funding. However, a school (or a P & F group for a school) may apply for funding from WWF, NHT funding etc. Contact Suzanne Curry, coordinator of external funding opportunities, for more information. Sponsorship funding has been obtained in the past from the Down to Earth Foundation, Lotteries Commission per the Eastern Hills Wildflower Society, and Healthways (Aboriginal program) but sponsorship is time consuming.

Suggestions made for targeting the schools market as a user group include:

- Do some research with schools before developing a schools program.
- Contact the Education Department and seek advice from Curriculum Development officers for learning areas of Society and Environment and Science. Also contact the District Education offices.
- Determine which schools are particularly focusing on Env Ed or involved with Bushcare, Land for Wildlife and the reveg program—check through the Australian Association for Environmental Education and EEN (email network), call Kath Broderick at Water and Rivers—send out a one page summary of the services provided by the Reference Herbarium and a questionnaire on how the school might use the Herbarium. Also send Land Management students who would also be interested.
- All high schools have a biology course. This includes Year 8-10 and the year 11-12. Bronwyn Humphries, the Department's Bushrangers Program Coordinator, has offered to help you link the WA Herbarium's data/options with the outcomes these teachers need to achieve. If the WA Herbarium provided an easy pathway that teachers can use to achieve the outcomes ... they will use the resource. Many of the CBR Instructors are biology teachers, they would be helpful in providing input and trialing any resource that may be developed.
- Speak to the people at the coal face —the teachers and students.

In summary, eco-education is a fundamental component of the Department's Communication plan that supports the Corporate Plan.

It was identified that a significant eco-educative role for the Reference Herbarium is possible through increased liaison with primary and secondary schools, and TAFE colleges. This would capitalise on work already being undertaken through programs such as The Department's Bushrangers program, BushCare, Land for Wildlife and other revegetation programs, particularly with the high level of motivation among teachers and their students to be involved in environmental management issues.

4.3. Overall response to Online Survey and User Categories

The response to the online survey exceeded our expectations. Most respondents provided substantial qualitative information. As the survey progressed we were able to modify the form (not the underlying questions, just the background information) with instant results.

A total of 68 responses were received within the two week survey period. Six of those were received on hardcopy. Another nine respondents replied with hardcopy forms after the close of the survey. Anecdotal feedback suggested a strong desire to participate in the survey. It was unfortunate, but unavoidable, that there were only two weeks allotted within the project timeline.

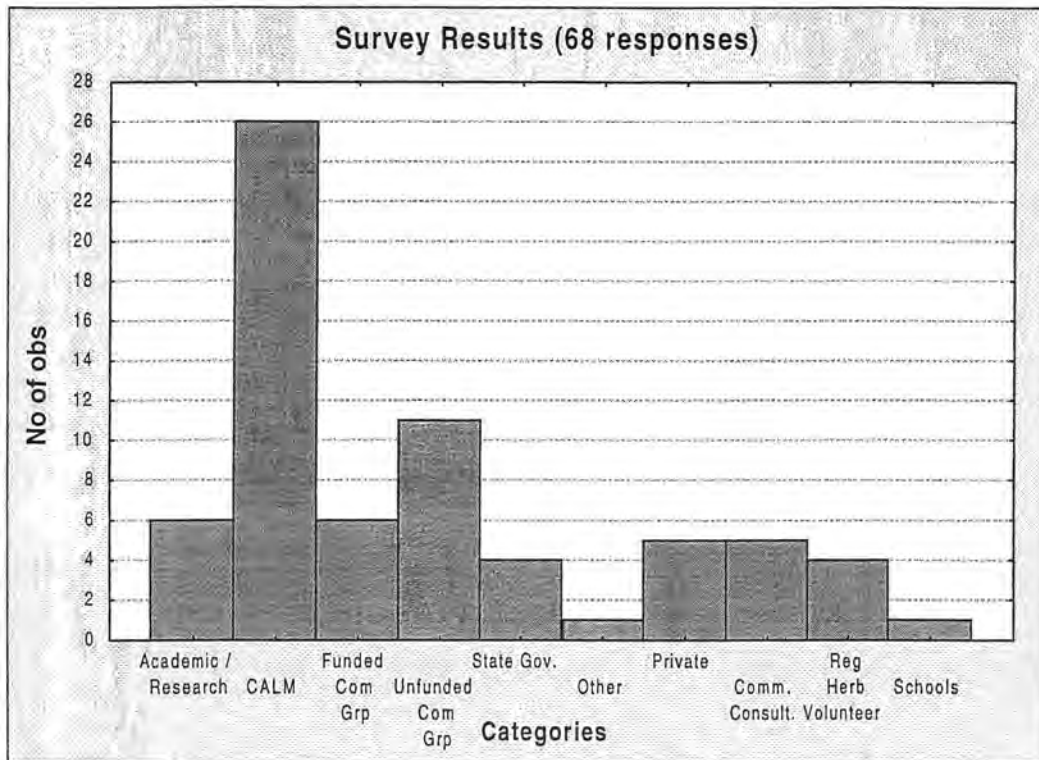
4.4. Objective 1: Identify current and potential benefits of the Reference Herbarium to conservation, to the community and to the WA Herbarium

Survey results unequivocally demonstrated a high level of support and satisfaction with the role and existing services provided by the Reference Herbarium. One respondent stated that "...the benefit of the Reference Herbarium to the State vastly outweighs its cost. It is invaluable". Another stated that "...the Reference Herbarium, and the wider WA Herbarium, are seen as part of the State's natural heritage and they should therefore be vigorously promoted and supported by the State Government and the wider community." There was a strong view that the Reference Herbarium's role was beneficial to conservation and the community.

4.4.1. Survey Q1.1: User Category

Of the 68 responses, the majority came from Departmental staff. To avoid the results being dominated by one particular category we analysed the results with and without Departmental contribution. The category, *Other*, was rationalised into existing categories without difficulty, with only one record unable to fit into an existing category.

Although a number of respondents described themselves as *Other: volunteer*, the extra information they provided generally disclosed they were working on a funded or unfunded project and were re-categorised accordingly.



4.4.2. Survey Q1.3: Rate of usage

Most users tended to use the Reference Herbarium a number of times per month (23/68) though the most frequent usage pattern for volunteers was a number of times per week (4/4). Of the Departmental staff who responded to the survey, 8/26 used it only occasionally and seven had never used the service at all.

4.4.3. Survey Q1.4: Services used

The most common services used were the reference specimens (56), the library (43) and the microscopes (38). 19 respondents identified the use of FloraBase and only nine respondents used a staff botanist.

4.4.4. Survey Q1.5: Consequence of Closure

A commonly repeated theme was difficulty in accurate plant identification. However the consequences of this were substantial: increased project costs, increased pressure on the main collection and Herbarium staff (with consequent increased handling of specimens and security issues), less reliable reports, less credibility in advocating for conservation, even compromised management decisions, and a need to find alternative reference material.

A number of respondents identified the loss to our understanding of WA plant biota, including threats from weeds. Equally importantly, they identified a substantial loss of goodwill towards the Herbarium and conservation generally. The consequences of this are manifold: less community interest on conservation issues, reduced contribution of specimens to the main collection.

Interaction between users was noted and highly regarded. Such interaction would be lost through closure.

4.4.5. Current benefits identified

Many of the respondents' comments regarding the consequences of closure identified a substantial number of benefits to conservation through the operation of the Reference Herbarium. These benefits, drawn not only from Q1.5, but all other questions, are summarised below:

- Supports the charter of conservation of the State's biodiversity;
- adds credibility to published research, management decisions;
- improves the ability to advocate for conservation areas;
- generally delivers improved conservation outcomes;
- substantially improves the accuracy of identification, thereby reducing risk of misidentification of specimens;
- improves our knowledge and appreciation of a poorly known and rich WA flora
- improves our ability to track threats to the biota through accurate identification of weed incursions
- promotes the value and role of taxonomy and botanical research and encourages increased botanical research in WA
- provides a highly valued interaction between government, scientists and community participants, including community groups, concerned for conservation
- promotes public participation in and helps community take responsibility for conservation issues;
- through successful volunteer management supports peoples desire to contribute to the public good;
- generates goodwill between the Herbarium and the scientific and wider community;
- reduces project costs by having quality self-service resources available (specimens, microscopes, etc.) and therefore gets the job done quicker;
- increases employment through the production of high quality, reliable reports, which demonstrates the abilities and high standard of work that is produced by botanists;
- provides experience for graduate or inexperienced botanists and increases prospects for future employment;
- provides an element of personal satisfaction amongst community groups and volunteers as presently they can offer their services to the community and others at little or no cost;
- alleviates the need for volunteers or community groups to find botanists (often working at consultant's rates, or by further taxing existing Departmental or community group resources by utilising their botanical expertise) to provide identification service;
- encourages the lodging of specimens within the main collection; and
- alleviates pressure from the main collection and Herbarium staff, thereby minimising risk of damage from over-handling, or security breaches.

4.4.6. Opportunities and their potential benefits identified

- If lodging specimens becomes mandatory through EPA guidelines, the Reference Herbarium will be essential.

- Building on support for the Reference Herbarium will result in greater numbers of specimens, images, etc which will improve the accuracy of identification and enhance Reference Herbarium's value to conservation.
- With increased support, more staff botanists will be available to quickly identify plants.
- Eco-education is a fundamental component of the Department's Communication plan that supports the Corporate Plan. It was identified that a significant eco-educative role for the Reference Herbarium is possible through increased liaison with primary and secondary schools, and TAFE colleges. This would capitalise on work already being undertaken through programs such as The Department's Bushrangers program, BushCare, Land for Wildlife and other revegetation programs, particularly with the high level of motivation among teachers and their students to be involved in environmental management issues.

4.5. Objective 2: Evaluate attitudes to User Pays as a means for adequately resourcing the Reference Herbarium to protect and enhance its role in conservation

4.5.1. Survey Q2.1: Acceptability of User Pays

4.5.1.1. Results

User Pays was generally acceptable to Departmental staff (21/26) and commercial consultants (4/5) but overwhelmingly unacceptable to other groups except University researchers who were evenly divided (3-3) and schools, for which there was only one response, favourable to User Pays.

4.5.1.2. Summary

One interpretation of this pattern of user categories is that those who considered User Pays acceptable were those who were employed professionals with secure funding, whereas those who found User Pays unacceptable could be characterised as people not in professional employment or without secure funding.

To explain that interpretation it could be considered that people who engage in environmental work as a past-time or who work for community groups, have attitudes that are at odds with commercial involvement in environment matters, and that are based on the belief that traditional processes of government funding are appropriate for the Reference Herbarium and the Herbarium generally, leading to free access for people and groups who do not have a commercial reason for the use.

4.5.2. Survey Q2.3: Effect of introduction of User Pays on usage

4.5.2.1. Results

Stop using the Reference Herbarium: 5/68 respondents

Reduce usage of the Reference Herbarium: 24/68 respondents

Continue Reference Herbarium usage unchanged: 19/68 respondents (mainly Departmental staff, 17/19)

4.5.2.2. Summary

No commercial consultants would stop usage but some would reduce usage.

The main groups who showed a strong bias toward stopping their use of the Reference Herbarium were community groups (funded and unfunded) and private users.

Again the difference between continuing current usage and reducing or stopping was between professionally employed and funded users and users who were unfunded and not in secure professional employment.

Overall this suggests that there would be a reduction of about half in total time usage of the Reference Herbarium, taking into account the people who would stop and those who would reduce usage. This represents a major risk effect. However the user categories concerned are mainly those who might pay concessionary rates, so that the reduction in usage would affect the intangible aspects of usage, e.g. conservation support, rather than fee income. There is the possibility that users who reduce their use of the Reference Herbarium would make more efficient use of it. Also, usage levels might well recover with time.

4.5.3. Survey Q2.2 Summary of comments about acceptability of User Pays

4.5.3.1. Themes running through the comments:

User Pays would have a negative impact on the Department of Conservation and Land Management's image in terms of its role in protecting biodiversity, through reducing community cooperation with the Department's aims.

Community groups and volunteers recommend charging commercial consultants and often government, but not volunteers and community groups.

The reasons for the initial setting up of the Reference Herbarium were invoked to support the importance of the facility, as well as to argue that the volunteer nature of its creation makes the imposition of charges on volunteers and community groups immoral. It was stated to have extensively involved volunteers, or even to have been conceived and carried out by them, although in fact volunteers only became involved at a relatively advanced stage in its development. Even so, significant volunteer time has been contributed, and still is for its maintenance. Other suggested reasons for the setting up of the Reference Herbarium were to relieve pressure on main Herbarium, and to offset the reduction in Herbarium staff resources for the identification service.

Herbarium volunteers are reported to have expressed negative feelings about being charged, although it was not necessarily intended that this group be charged.

There would be acceptance of user pays for a good identification service, i.e. a service including a botanist.

Some commercial consultants who need the services provided by the Reference Herbarium would see paying for it as a normal commercial cost

User Pays would cause loss of good will that would impact on specimen donation and provision of information about species

4.5.3.2. Summary of comments:

Negative and positive comments were received, with most comments being negative.

Charging of commercial users was acceptable to both commercial users and community groups.

The effect on conservation is hard to identify but was a component in many comments.

Many respondents felt that government funding for the Herbarium as a whole should cover the Reference Herbarium as a public service. The availability of a professional botanist to help or provide an identification service was also often advocated.

There were some factual errors among the comments, particularly about the history of the Reference Herbarium, its reasons for being set up, and who did the work.

Some comments overlapped or confused the main herbarium and the Reference Herbarium

4.6. Objective 3: Evaluate User Pays Models

4.6.1. Survey Q3.1, 3.2: Would you regard a user fee based on your usage and ability to pay as fair?

4.6.1.1. Results

Categories of users with a majority who considered this scenario to be fair included Department staff and University researchers, and also very slightly, commercial consultants. Considering it to be unfair almost unanimously were community group members, whether funded or unfunded, volunteers were unanimously against it, and also with a very slight majority, private users. Other government departments were evenly divided, and schools and "others" were too few to generalise.

4.6.1.2. Summary

Thus the results divided somewhat along whether in government employment or not, rather than seeming to be by security or funding status of users as was the case with some other questions.

4.6.2. Survey Q. 3.3: Rating fairness of charging differently stated categories of users according to their funding situation.

4.6.2.1. Results

Two outstanding features of the results to this question was the wide spread of opinions within most user groups, and the preponderance of respondents who indicated they were uncertain. However most groups showed a skew either toward "fair" or "unfair".

Department staff appeared in all answer classes but tended toward "fair", and other government staff were mainly uncertain with a trend toward "fair".

A similar pattern of responses was exhibited by university researchers, community groups volunteers and private users where usually the highest number were uncertain but there was a spread to "very unfair" and a small number rating "fair". Interestingly, commercial consultants showed the opposite trend, mainly uncertain but spreading to "very fair", though with one rating it "very unfair".

4.6.2.2. Summary

These results indicated that users were uncertain about the category system, perhaps because of lack of detail about the level of charges or of the exact details of the categories and how the system would operate. It may be assumed from the overall survey results that where people considered the system unfair, rather than considering that there is a better category system, it was the principle of users pays that was being rated as unfair. The similarity of the two community group member types supports this.

4.6.2.3. Survey Q3.5: Rating fairness of a membership and daily rate system.

The results for this question were very similar to the previous, 3.3, in showing a wide spread of scores in most categories, the main difference being fewer people in the uncertain class. Again the two community group member types, funded and unfunded, showed a similar spread to each other.

4.6.2.4. Summary

The same explanation is assumed for this question as for 3.3.

4.6.2.5. Conclusion

It is likely that either the complexity of the models or unfamiliarity with their workings caused much of the uncertainty expressed by the scoring, although disagreement with the user pays principle may also be what people were indicating. The pattern of scorings suggested that opinions on these models did not correlate closely to the user categories that people identified with. However other factors could be involved, such as some people rating the system according to principle whatever they thought their category might be charged, and others being influenced by what they thought the implications might be for them.

The categories and the membership/daily fee idea did not receive either a ringing endorsement or complete disagreement, so that they may not be regarded as completely outrageous suggestions in the event of user pays being introduced.

4.6.3. Benchmarking

A questionnaire (see Appendices, Section 6.3: Questionnaire relating to user pays systems for reference herbarium services in Australian herbaria) was devised and emailed to a small number of herbaria in Australia and overseas. The Australian group consisted of the main herbarium in each other state including the Northern Territory, but excluding the Federal Government's Australian National Herbarium because of its perceived major differences in funding situation. Four of the six replied. Five overseas herbaria were contacted, four in the USA and one in United Kingdom of which three replied. A visit to the Brisbane herbarium had been suggested in order to investigate their situation as it is regarded as similar to the WA situation, but in the event a colleague visited on other business and was able to convey relevant information additional to the questionnaire response.

Probably no other herbarium is in exactly the same administrative and funding situation as the WA Herbarium, but the Australian ones are closer. Nevertheless, widening the contacts beyond Australia helped to compare with trends and practice elsewhere, despite the small sample. The benchmarking questionnaire was designed to allow for organisational differences, for example to try to cover the possibility that a reference herbarium facility might not exist because of some substitute such as access to the main herbarium or a highly developed website.

4.6.4. Results

4.6.4.1. Australia

Among Australian herbaria, 3/4 have a publicly available reference herbarium. The fourth (Melbourne) has one for staff use for providing the identification service. They consider that there is little demand for a public one in view of Victoria's small flora and good identification books, both factors representing differences from the WA situation. The Melbourne herbarium compensates somewhat by allowing access to the main herbarium for most groups, although this is probably not for routine identification purposes.

All three of these herbaria allow access to their reference herbarium by all user groups, one does not charge any group while the other two charge commercial consultants. The distinction between funded and unfunded community groups is apparently not made by any herbarium.

All four herbaria provide a professional advisory service for identification, only two apparently charging for this, one of them only charging consultants and the other indicating that charges are often waived for people who donate good specimens or interesting information.

Two of the herbaria have an externally accessible Internet botanical information system, although only one of these approaches FloraBase in informativeness. A third herbarium is developing a system, and one of the herbaria which did not reply is known to have an informative Web system. One website is freely accessible without registration, the other has a registration requirement and a partial charging system. The websites are not being used as substitutes for a reference herbarium.

Three herbaria said they have a set charging policy, although one was not sure they could easily locate it. They were not asked details of the charges. Asked what other services they charged for, one herbarium said specimen data including map coordinates and especially rare and threatened species information, and another said "consultancies of various kinds".

4.6.4.2. Overseas

The University of California (covering two collections at different campuses - University Herbarium and Jepson Herbarium) were primarily aligned toward research users but did service some public enquirers, but not commercial consultants. They have no set charging policy. Access to their main collection is readily given, though with care, and it thus serves references purposes. Only a very limited identification service is provided, apparently because of lack of resources. A web site is available, although it is not a substitute for a reference herbarium.

The UC Davis Herbarium at Davis, California has a fee structure in place for all users although the fees are waived a lot. They had a web site with information on services available and the corresponding fees for those services.

Department of Botany, Natural History Museum, London do not have a publicly accessible reference herbarium but access could be gained to the main herbarium by appointment and with varying degrees of supervision. The institution charged for services such as electron microscopy, photography etc., and had a set policy in place for charging these services.

Universities without a fee structure had talked about instituting one but had not tackled the infrastructure to do so.

Overall the overseas institutions allowed access to the main herbarium but in most cases by appointment and with certain policies and regulations and/or supervision in place. This information was gathered from web sites and responses.

4.6.4.3. Summary

Most Australian herbaria apparently have a reference herbarium, usually accessible to the public, and usually access is free. The overseas contacts and responses were too few to generalise very far, and the situation is different in that herbaria are often university facilities rather than government institutions.

The results suggest that most other Australian herbaria have not imposed charges for services other than for commercial users in some cases, and for supply of specimen data

from the database in one case. Most seem to provide an identification service staffed by a botanist, and this is usually free.

From these results it could be concluded that a reference herbarium is a normal part of herbarium services in Australia. The rarity of charging for services could be interpreted in various ways, but separate information indicates that most Australian herbaria have larger botanical staff than the WA Herbarium, which presumably permits offering an identification service. It also suggests that budget reductions have been less severe there.

In conclusion, it seems that the WA Herbarium would be breaking new ground by instituting a serious charging system aimed at significant cost recovery.

4.7. Objective 4: Provide a broad cost analysis for various proposed options of User Pays

A full cost recovery analysis was undertaken for the Reference Herbarium. These details are provided in the Appendices, Section 6.1: User Pays project definition. In summary, the full, annual cost for maintaining the Reference Herbarium, including all physical and notional (ie value of volunteer time) was **\$152,922.51**. If volunteer time (estimated at 16 hours per week of an equivalent Level 3, 4th Year) is omitted from this figure, the costs still amount to \$132,432.11 per annum.

A number of respondents criticised this figure, noting that the Reference Herbarium was largely staffed by volunteers and that the figure was therefore inflated. In fact, there is a substantial staff contribution. Most perceptions do not take into account the activity required to support the Reference Herbarium that takes place in the main Herbarium. Curation, identification, databasing, validation and administration; are all required to support the Reference Herbarium. Furthermore, each volunteer requires backup and support and this also impacts on staff time. Because these essential support activities take place in the main Herbarium they are not generally taken into account in the public perception.

Furthermore, if the criticism that we underestimated the true value of volunteer contribution is upheld, this would in fact raise the notional cost of the Reference Herbarium even further.

As an example of how this figure might be used as a charging mechanism, the table below shows annual cost divided by the estimated number of visits, annually. If an arbitrary figure of 40% of cost recovery is used, then putative figures, per visit, for commercial consultants, non-commercial groups and private individuals are shown below. The rates applied to the different user categories conform to the User Category model in the User Survey (see Section 6.2), where non-commercial groups and private individuals would be charged 50% and 10% respectively of the amount charged to commercial users.

Conversion to Selling price per Unit

	Total 'Full Cost	152,922.51		
Estimated number of units (visitors)		1,700	\$	89.95
40% of total costs (commercial)		0.4	\$	35.98
(non-commercial)		0.2	\$	17.99
(community groups/amateur botanists etc)		0.04	\$	3.60

4.8. Objective 5: Identify, at a coarser level, alternative options for resourcing both the Reference Herbarium and the wider WA Herbarium

Suggestions of alternative funding sources or models for the Reference Herbarium and wider Herbarium, and improvements to the Reference Herbarium were included in the

survey results. Information also came from Herbarium correspondence. Benchmarking was carried out by sending questionnaires to Australian and international herbaria.

4.8.1. User Pays is not the only option ...

Introducing a User Pays system carries certain risks, as indicated by the survey on user attitudes. These include:

- political pressure against a User Pays system. This may have flow-on effects to the success of obtaining internal funding and improving the funding and staffing situation.
- substantial loss of goodwill toward the WA Herbarium, resulting in fewer donations of specimens etc, which are the basis of the Herbarium;
- reduced usage of the Reference Herbarium, leading to a lower than planned income. This is a greater risk if there has been expenditure to improve the facility, which then cannot be recouped.
- negative attitudes toward conservation among community groups, volunteers and private individuals through associating conservation with an apparently more commercially oriented Herbarium and
- fewer new volunteers and departure of existing volunteers or lessening of enjoyment of work at the Herbarium because of disagreement with a user pays system.

Consequently alternative ways of funding the Reference Herbarium and also the wider Herbarium were included among questions in the user survey and the Project Group's deliberations.

4.8.2. Full government funding

The user attitudes survey indicated that there is a high proportion of users who consider that the Reference Herbarium, and the Herbarium as a whole, should be fully and adequately funded by the Government and provide access to the facilities as a public service.

The concept of full and adequate government funding in the traditional way raises many questions, but briefly the investigation of User Pays was a response to full funding not being available in the first place, and this was indicated in the survey prologue.

Advocating full government funding for the reference herbarium implies that the Reference Herbarium be given a sufficiently high priority among all Government, Departmental, Divisional and wider Herbarium responsibilities as to allow the required funds to be provided from a steady or reducing budget, or that the overall government budget be increased by a sufficient amount to provide the required Reference Herbarium support with existing priorities.

Full funding advocates therefore either disagree with the priority given to the Reference Herbarium or do not understand the implications of their attitude.

Nevertheless, the survey showed that there was a substantial usage of the facility, and much support for its continuance, which should assist with assessing priorities.

Benchmarking against overseas and other Australian herbaria indicates that where a reference herbarium facility exists, it is often fully funded internally, except for fees for commercial users, and a free identification service by a botanist is often provided. However the situations are often not directly comparable.

4.8.3. Corporate sponsorship

This was the most commonly preferred alternative option, especially by community groups. It is a promising option that has so far been little-explored by the Herbarium. One commercial consultants' group has offered assistance with seeking corporate sponsorship, by providing company names and contacts within them as well as pledging lobbying support.

Generally this source of funding can be expected to be either one-off, for particular items, or operate for a relatively short period.

Refer to CALM Admin Instruction 51 and CALM Policy Statement 46 relating to corporate sponsorship.

4.8.4. Increase whole Herbarium recoupable income

By increasing funds available to the Herbarium as a whole, more funds could become available for supporting the Reference Herbarium, depending on priorities.

Some possible income-producing services and products follow. Some of these activities use the Reference Herbarium facility, others do not.

4.8.4.1. Botanical identification service

A fee be charged for botanical identifications made by a botanist.

This service is very desirable according to the survey. Although some respondents want it provided free, others are willing to pay. It is known from survey information that commercial activity exists. It would not be possible to provide it free, nor to staff it from existing botanical staff.

A possible concept might be to subcontract a botanist on an as-needed basis, with access to the Reference Herbarium, to other staff botanists, and FloraBase. If not fully employed, then the person might participate in other income-producing or externally funded services.

4.8.4.2. Professional vouchering service

Vouchering is preserving a specimen of plants used for some purpose or observation, such as an experiment, survey, field-based research, photo, or record of occurrence, as proof and verifiability of the identity of the plant taxon concerned. The Herbarium actively encourages the lodging of vouchers in its collection so that vouchers can be physically cared for, made available to taxonomic experts so that identification can be kept up to date, and to contribute to the information known for species through the collection. However voucher incorporation is a cost to the Herbarium, and is difficult to control because the number being lodged in any one year is not known in advance. So the Herbarium has sought to educate users about the importance of contributing to the cost. However, this approach is often criticised.

A professional vouchering service could be expected to provide income to enable the Herbarium to afford to accept vouchers and care for them properly, and at the same time to provide a new and potentially useful service for users.

The professional vouchering service would essentially involve the incorporation of the voucher specimens in the collections as usual, but would use the database systems to associate an identifier with each voucher for a given study plus a list of bar-coded sheet numbers for each specimen in a set. This information would be provided to the person lodging the vouchers as a certificate which would carry with it the long-term right to access those records via a personalised FloraBase page indicating the current identification and all label information for that set. In addition, an alerting service would be provided for changes

of identification affecting any specimens in the set. Optional extras might include identification of the specimens and label data entry. Fees would presumably be on a per specimen basis.

Vouchering is important to scientific standards and should be encouraged or required for environmental work in Western Australia. Lodgement at the WA Herbarium, preferably through the official professional vouchering service, should be a condition of granting scientific collecting licences for plants.

The service should be given an identifiable name, the specimens included in the professional service should be given an official status, and the service should be actively promoted and explained, with appropriate publicity material.

4.8.4.3. *FloraBase*

This web-based flora information system might produce significant income if the fee scales were re-evaluated and it was properly marketed.

4.8.4.4. *Publications*

Saleable publications of a semi-popular or targeted variety might produce useful income. There is scope to produce spin-off products from FloraBase, which might be a way of reducing the writing costs, at least to establish a revolving fund to finance publication costs for further publication projects.

4.8.4.5. *CD-ROMs and on-line information*

A variety of CD-ROM products could be produced, again as relatively spin-offs from FloraBase. They might target tourist, tourism industry, educational and community markets. For the community sector, these might be customised for particular content, geographical scope or for particular visitor sites.

On-line information terminals linked to FloraBase and located in visitor centres could be customised, and could return a percentage of visitor fee income.

4.8.4.6. *Training services*

The Herbarium staff (permanent and contract) and volunteers already conduct training workshops for community groups, funded by external grants. These are popular and serve to raise environmental awareness in the community and improve botanical identification skills.

An expanded and improved service could be offered to commercial and funded community groups, using the RH facilities and similar facilities in Regional Herbaria. Survey information indicates that there is a strong demand for this type of service. The courses could be conducted using FloraBase, which in turn would generate a community of knowledgeable and fee-paying FloraBase users.

4.8.4.7. *School programs/visits*

Develop schools-oriented FloraBase content which could be marketed to schools in WA and interstate.

Fee-paying visits to the Reference Herbarium by schools to use the facilities and receive courses on WA flora biodiversity, conservation and identification.

4.8.4.8. Exhibitions

FloraBase could host sponsored exhibitions on themes linked to current events in WA.

4.8.4.9. Donation box

A donation box located in the Reference Herbarium was suggested by one survey respondent, presumably because it would constitute a non-coercive approach to obtaining payment for use of the facility.

This is unlikely to be an important source of income, and might appear unprofessional.

4.8.5. Enter interdepartmental partnerships

Alternative partnerships or additional partners could be used. For example, Agriculture Western Australia is a big user of Herbarium-derived information, and would be an even bigger user if a fully cooperative partnership were to be developed, to the point where a staff position might be funded. Agriculture is increasingly working with native flora and also needs quality weed information.

One survey respondent suggested entering a partnership, e.g. with Kings Park (Botanic Gardens and Parks Authority) to build a new facility around the Reference Herbarium or created independently. This might incorporate the following ideas:

- Kings Park location. This site is highly visited by tourists and botanically oriented people.
- Tourism focus for the facility.
- Modern technology used. For example, virtual flora tours of WA could be offered, based at least partly on FloraBase content.

4.8.6. Federal government support

The Herbarium is currently funded largely from state government sources. The Federal Government provides specific grants, which have contributed at least partially to many of the Herbarium's facilities, including the establishment phase of the Reference Herbarium itself. With WA containing a large proportion of the nation's land area, flora species and environmental and conservation problems, the Herbarium as the main collection of plant information for WA is a natural partner for the Federal Government in managing its responsibilities. Funding opportunities include:

- grants for specific purposes, e.g. taxonomic and conservation-related research;
- support for participation in a quarantine information and pest surveillance network and
- partnership in the nation's biodiversity collections and information dissemination network, leading to infrastructure support which might include support for a new building.

4.8.7. International funding

There may be opportunities for increased funding from international sources, for example:

- WWF and other private nature foundations and

- Global Biodiversity Information Facility (GBIF) project recently commenced by the OECD countries. The Herbarium's leading-edge FloraBase information system could be expected to be attractive to such projects.

4.8.8. Environmental tax or levy

One respondent suggested that basic environmental facilities such as the herbarium could be funded by an environmental tax or levy on the mining industry sector.

While of interest, this is not a short term solution, and is not under the control of the Herbarium or the Department as it could only be achieved through the political process.

4.8.9. "Friends of" Group to pursue fundraising

A "Friends of the Herbarium" group could provide a means by which interested community members could assist the Herbarium to raise funds. Such a group, if incorporated, could provide a means to access funds from sources unavailable to government departments, such as:

- Lotteries Commission;
- donations and
- bequests

4.8.10. Funding Advisory Committee

Establishing a Funding Advisory Committee of interest groups might be an effective means of building support, tapping into sources of advice, creating links into organisations for funding or collaboration, and providing an avenue for explaining the Herbarium's position and policies in the level of detail required for a full understanding.

It also provides a means of contact with the users (or customers) for feedback on service levels and quality.

The committee might include representatives of consultant organisations, other government departments, community organisations, school and tertiary education sectors, independent botanists.

4.8.11. Implementing an alternative funding strategy

- Prepare a business plan. The funding strategy may include a combination of approaches.
- Prepare a communication plan to explain the Herbarium more effectively to its users and the Department generally.
- Promote the Herbarium, the reference herbarium facility, and the services offered.
- It is recommended that funding be sought to employ a fundraising and marketing professional to implement a vigorous program of funding activities (government, interdepartmental partnerships, commercial sponsorship, grants, commercial products, promotion of professional services). There are insufficient staff resources and skills to properly carry out this function, which needs to be done effectively.
- The funding might represent seed money for a subsequently self-funding position.

5. Actual Outcomes

5.1. Key Conclusions

Feedback from the vast majority of survey respondents demonstrated a clear need for the Reference Herbarium. It contributes strongly towards conservation of biodiversity; provides a focus point for the community to become concerned with and take responsibility for dealing with conservation issues. There is a strong sense of ownership within the community of the Reference Herbarium. Furthermore, support for the Reference Herbarium is generally accompanied by support for the wider WA Herbarium, and its role in conservation.

Most respondents recognised that the WA Herbarium was significantly under-resourced, though few realised that support for the Reference Herbarium had been taken at the expense of the main collection. There was a strong view from many respondents that the Reference Herbarium should be adequately supported by the Department and funded from Consolidated Revenue Fund.

Although there was broad opposition to charging for services currently provided free, commercial consultants and Departmental staff thought User Pays a valid strategy for gaining funding, though that cost should not be onerous. Most people, even those most strongly opposed to the principle of a User Pays system, suggested that there should be a charge for botanist's time.

A number of factual errors by respondents were evident in survey results, largely as a result of misperceptions about the true cost of service provision and the role of volunteers. These findings support the need for a communications plan to be developed.

There are powerful emotional and symbolic reasons why access to the Reference Herbarium should remain free of charge. Many respondents were extremely disturbed at the prospect of having to pay for services which, in their perception, belonged to the public and should be provided free. In some cases they threatened to withdraw the donation of valuable specimens to the main collection. Charging may change the relationship between the Herbarium and the public as well as putting at risk other benefits such as volunteering.

It was identified that a significant educative role for the Reference Herbarium is possible through increased liaison with primary and secondary schools; and TAFE colleges.

5.2. Key Recommendations

- That the Department take into account the strong community feeling that it re-prioritise the Reference Herbarium to receive full government funding in recognition of its demonstrated benefit to conservation of biodiversity and extensive community involvement.
- In the absence of full funding, that User Pays principles be implemented in the following situations (acknowledging that, in general, modest charges cannot earn more than a small percentage of total costs, and the Reference Herbarium should be funded by Government in recognition of its benefit to the community).
- Commercial consultants and other State Government Departments (as per treasure guidelines) be charged 40% of full cost of operations (approximately \$36 per day) for use of Reference Herbarium facilities. This is considered a modest fee that should not substantially discourage use by these user groups.

- Community groups, volunteers and private individuals, irrespective of affiliation, should not be charged for use of Reference Herbarium services.
- For funded projects, Reference Herbarium services will only be available where there has been a formal arrangement reached with the WA Herbarium. This applies to all community groups and Departmental staff. Arrangements might involve, at the discretion of the Director of the Herbarium, a recognition of in-kind contribution of specimen vouchers. Alternatively, there might be a demonstration that specimen processing costs had been factored into proposed grants. (The WA Herbarium is keen to assist in the development of future grant proposals that achieve this.)
- There should be advance notice of six to twelve months before any User Pays plan is implemented.
- All non-self-help services, e.g. staff botanist's time should be charged at full cost recovery. There should be a minimum half hour charge levied, irrespective of user, for advice or assistance of any kind.
- As a risk minimisation strategy, the WA Herbarium should develop, in consultation with Corporate Relations and Strategic Affairs Division, a Communications and Marketing plan to promote and publicise the Reference Herbarium and to ensure the successful implementation of the User Pays plan.
- The communications plan would also develop strategies to inform the public about the role of the WA Herbarium and its links to the community.
- Implement a registration system to more adequately document use of, and control access to the Reference Herbarium.
- Form a project team to investigate and develop other funding alternatives (see Section 4.8).

5.3. Other Recommendations

- Employ a fundraising and marketing professional to implement a vigorous program of funding activities (government, interdepartmental partnerships, commercial sponsorship, grants, commercial products, promotion of professional services). There are insufficient staff resources and skills to effectively carry out this function.
- Plan for the adequate provision for reference herbarium facilities in the design concepts for a new building for the WA Herbarium. It seems evident from the project work and from public submissions that an improved building environment would enhance the image of the Reference Herbarium as a complete, modern and professional facility, which would increase the willingness of people to pay, and improve its attractiveness to potential sponsors.
 - An independent review of the WA Herbarium which included the Reference Herbarium and its role in herbarium services and the adequacy of the present facility among its terms of reference would be an effective way of determining its level of priority and if found to be warranted, of justifying an appropriate funding allocation.
 - Follow up on suggestions made by the Department's Eco-education Unit.
 - Solicit existing ex-teachers within the WA Herbarium's volunteers to help follow up and run school visitation and other educational programs.

- Retain any monies derived from Reference Herbarium fees for the support of the Reference Herbarium only.
- Raise awareness among management of the dangers of pursuing the making of money at the expense of fundamental conservation goals.
- Acknowledge that in general such 'modest' charges cannot earn more than a small percentage of total costs, and the Reference Herbarium must be funded by government in recognition of its benefit to conservation and the community.

5.4. Project review

5.4.1. Management processes

- An important part of the project was the team process. We believe the success we have had in producing such valuable project outcomes is due to a shared enthusiasm for our project and mutual respect for each other, right from the start of the project. We valued each of our team member's opinions and abilities. We all fully participated in the project by sharing ideas, opinions and tasks.
- As a quality control mechanism, this sharing of ideas and opinions included obtaining feedback from our fellow team members on the work in progress to ensure it was focused on our objectives and was to a acceptable standard.
- The communication was honest, open and flowing via email and telephone, as well as several meetings—one teleconference and several face to face meetings, including a major milestone, a lunch meeting with our facilitator Natalia Norris and Max Scully. Paul Gioia and Terry Macfarlane from the Herbarium liaised with Neville Marchant, our sponsor, to discuss issues as they arose and informed him of our progress.
- A number of measures were put in place to ensure we worked effectively and efficiently despite many pressures including annual leave, sickness, other job priorities etc. Two people were allocated per task in the event of member absence. All roles were explicitly allocated and a timeline supervisor kept track. At the end of each week each team member e-mailed the team supervisor of their progress on their tasks and of any impending problems that might have affected the timeline. An Excel spreadsheet was created to capture all this information and then forwarded to all team members. Roles were re-allocated, as required, to ensure that all tasks were done in time.

5.4.2. Issues to be addressed

5.4.2.1. Sufficient time allocation and warning

- Despite the suggestion of a two and a half hour per week allocation of core-work-time to project activities, actual time spent, in and outside core work time, was far in excess of that. Its essential for the Sponsors, Directors and organisers to recognise the time commitment needed to ensure successful outcomes for each project and authorise a realistic time frame and/or increase project allocation core time per week.
- We also felt that in future that it is important to give nominated participants enough advance notice so they can plan their schedules such that they are free to participate in not only the residential component but the project

component as well. They are also to be made aware of the core work time allocated that will be required to produce their projects.

5.4.2.2. Resources

- The Directors and sponsors need to allocate sufficient resources (additional staff time and operational costs) to enable teams to achieve a successful project outcome. These resources need to be detailed in the project brief.

5.4.3. Reflections – lessons learnt

- The importance of a good laugh and the consumption of large amounts of red wine.
- Don't stress about the result....stick to the plan, the result will happen.
- Timing is crucial. Therefore the task and time allocated need to be attainable and realistic.
- Focus on the scope and intended outcomes.
- The mix of team personnel helped ensure the success of the project. Two members were from the WA Herbarium, and were able to give an insiders' view and valuable information about the Reference Herbarium. They fired our enthusiasm for the project and the desire to produce a quality, usable report. The other three team members were able to look at issues with an unbiased view, looking outside in, therefore ensuring the report outcomes had a wider perspective. Finally the mix of the teams knowledge, skills and abilities, were very appropriate to the project and enabled all to participate and contribute to the final outcome.

6. Appendices

6.1. User Pays project definition

Scope

Adequate resourcing and the supporting of high quality science are critical issues for the WA Herbarium. The Herbarium encourages a high degree of voluntary community participation (as well as dealing on a commercial basis with consultants), in line with the corporate mission "to conserve WA's biodiversity in partnership with the community". Increased costs and insufficient resources are threatening the viability of a number of services currently provided free of charge. This project will examine the benefits and risks to conservation of implementing a User Pays system on one of those services, namely the Reference Herbarium. It will also develop risk minimization strategies. Furthermore, it will identify, at a coarser level, alternative options for resourcing both the Reference Herbarium and the wider WA Herbarium.

Objectives

1. Identify current and potential benefits of Reference Herbarium to conservation, to the community and to the WA Herbarium
 - 1.1. Visit Herbarium
 - 1.2. Talk with Neville
 - 1.3. Interview Herbarium staff re list of current services and potential services to the community
 - Interview NGM
 - 1.4. Identify current and potential user groups
 - Analyze past visitor records
 - Develop list of questions for both potential users groups and benefits to conservation of RH
 - Interview key CALM staff (Herbarium, CALM Education Unit)
 - Analyze the outputs of above strategies to summarize benefits to conservation
 - Collate data
2. Evaluate attitudes to User Pays as a means for adequately resourcing the Reference Herbarium to protect and enhance its role in conservation
 - 2.1. Survey of current users and other CALM staff re User Pays attitudes
 - Design survey questions and areas to be covered (include multiple notions of user pays)
 - Design survey form
 - Decide method for administering survey
 - Implement survey
 - Follow-up a sample of non-responders via telephone during middle of second week
 - Complete survey
 - 2.2. Analyze results
 - Identify level of support for RH
 - Identify potential for alienation of current users
 - How much would users be willing to pay for current services
 - Complete analysis of survey results
3. Evaluate User Pays Models
 - 3.1. Benchmarking - explore methods and results of implementing U.P. in other States

- Develop standard questions
 - Contact Herbaria
 - Analyze results
- 3.2. Describe different models
4. Provide a broad cost analysis for various proposed options of User Pays
- 4.1. Carry out a full cost recovery analysis of current services
- Use Excel worksheet of full cost recovery estimates
- 4.2. Identify proposed alternative charging mechanisms (using survey data) eg sliding scales
- Use data from 1.2 and 2.2 to develop charging models for each user group
 - Also include the notion of sliding scales for different user groups (eg through collaboration or donation of high quality vouchers)
 - Develop revenue projections for a test case
5. Identify, at a coarser level, alternative options for resourcing both the Reference Herbarium and the wider WA Herbarium
- 5.1. Collate survey results and other documentation to identify alternative options implicit within results
- Develop options
- 5.2. Complete summary of alternative options
6. Produce report and present on recall day
- 6.1. Provide recommendations
- Recommend development and implementation of risk minimization strategies
 - Draft report
- 6.2. Present report
- Team rehearsal
 - Presentation
 - Wine, wine, wine

6.2. Online Survey Questionnaire

LODP User Pays Project

Survey Design

10th July, 2001

Prologue

The WA Herbarium provides a number of services to the public and the scientific community, including a Reference Herbarium - a facility where people can identify plant specimens. It has bench space, microscopes and the tools necessary to identify plants: books, a reference set of named plant specimens of most Western Australian native and weedy plant species (which is regularly maintained) and computers providing access to FloraBase, the Herbarium's frequently updated flora information system. The Reference Herbarium is widely used by many community groups, commercial consultants and individuals, with about 1700 visits a year.

Currently, use of the Reference Herbarium is free. However, it costs more than \$1500,000 a year to maintain the service. (That figure has been accurately calculated using standard treasury guidelines. It includes the contribution of volunteers. Even without the latter, the figure still amounts to just over \$100,000.) Because the WA Herbarium has a number of activities to fund from a reducing budget, it is unlikely that the Reference Herbarium can continue to be provided free. Either additional funds must be found or the Reference Herbarium will have to close.

We recognise this service is valued by many people. We also recognise many users operate on a voluntary basis through community groups or individually, and we value highly the associated goodwill. We are therefore looking for a cooperative solution to our problem, and would value your input by being part of this brief questionnaire.

We are considering ways to keep and improve the Reference Herbarium and would like your feedback on our suggestions.

The survey is anonymous and should only take you 10 to 15 minutes to complete. This information will be used to find a way to make the Reference Herbarium self sustaining but continue to be accessible to users.

Questions for Objective 1

Q1.1. Please identify which category of user you most identify with.

(Drop down box, single choice)

- Commercial consultant
- Community / environmental group (funded project)
- Community / environmental group (unfunded project)
- CALM staff
- State Government (non-CALM)
- Private / Amateur
- Consultant / University research (staff / post grad)
- Local Government
- Regional Herbarium volunteer
- School staff/students
- Interstate / Overseas botanical visitor
- Other

Q1.2. If Other, please specify.

Text box:

Q1.3. How often do you use the Reference Herbarium?

(Drop down box, single choice)

- More than once a week
- More than once a month
- More than once a quarter
- More than once a year
- This is my first visit
- Never

Q1.4. Which services do you use?

(Drop down box, multiple choice)

- Microscope
- Reference specimens
- Reference library
- FloraBase (Online information system)
- Staff botanist

Q1.5. What would be the consequences for you if the Reference Herbarium had to close down?

Text box:

Questions for Objective 2

Q2.1. What is your reaction to the principle of applying a user pays system for the Reference Herbarium? What is your reaction to the principle of applying a user pays system for the Reference Herbarium?

(Drop down box, single choice)

- Acceptable
- Not acceptable

Q2.2. Please elaborate if you can.

Text box:

Q2.3. If such a system were to be implemented at the Reference Herbarium would you:

(Drop down box, single choice)

- Continue my current usage?
- Reduce my usage?
- Stop using the facility?

Questions for Objective 3

We are considering some models (with variations) for subsidising the Reference Herbarium, and welcome your feedback on these models.

Q3.1. Would you regard a user fee based on your usage and ability to pay as fair?

(Drop down box, single choice)

- Yes
- No

Q3.2. Please elaborate if you can.

Text box:

Here's a proposal:

Most people use the Reference Herbarium as an identification service, and bring specimens in for identification. Users would register to use the Reference Herbarium, and then be assigned a user category in the process. There are four categories:

- Category A: Commercial users pay a base price based on standard full cost recovery guidelines
- Category B: Non-commercial users working on funded projects pay half of base price
- Category C: This category would pay 10 percent of base price and include private individuals, amateur botanists or community groups working on unfunded projects.
- Category D: This category would have the fees waived at the Herbarium Director's discretion. This is to allow for special cases such as part of an arrangement for services to the Herbarium.

Q 3.3. How do you rate this proposalcategory system?

(Radio boxesDropdown box, single choice)

Very fair
Fair
Uncertain
Unfair
Very unfair
Unfair 1 2 3 4 5 Fair

Q 3.4. Do you have any suggestions for improving it?

Text box:

We are considering a system in which patrons choose between an annual membership subscription and a daily usage fee. In either case the actual amounts paid would be determined by user category. We are considering annual membership, and a flat daily fee. You would pay a single annual membership fee, or alternatively pay as you go with a daily usage fee. The actual amounts would be determined by your user category. It would be cheaper to become a member than pay a daily rate if you are a heavy user of the Reference Herbarium.

Annual membership would allow for a set maximum number of specimens per day to be brought into the Reference Herbarium for identification. It would also provide the member with the standard services of bench space, a microscope, the reference collection, reference library, FloraBase and limited access to a staff botanist. Over and above the set maximum, there would be an additional charge per specimen.

Q 3.5. How acceptable do you find the idea of a membership and daily rate system?How do you rate the idea of membership in conjunction with a flat daily rate?

(Radio boxesDropdown box, single choice)

Very acceptable
Acceptable
Uncertain
Unacceptable
Very unacceptablePoor 1 2 3 4 5 Excellent

Q 3.6. Do you anticipate any problems with this idea, or do you have any suggestions for improving it?

Text box:

Questions for Objective 5

Q 5.1. What additional ideas can you suggest for resourcing both the Reference Herbarium and the wider WA Herbarium?

Text box:

Q 5.2. Do you have any further suggestions for how we can improve the services provided by the Reference Herbarium and the wider WA Herbarium?

Text box:

Thank you for spending this time in helping us address our funding situation. The information you've provided will help us sustain our existing service and provide a better one in the future. We welcome all suggestions. If you would like to discuss our proposals further we invite you to provide some contact details.

Name:

Text box:

Email:

Text box:

Phone:

Text box:

6.3. Questionnaire relating to user pays systems for reference herbarium services in Australian herbaria

Prepared by Terry Macfarlane (terrym@calm.wa.gov.au) and Valerie Cave (valc@calm.wa.gov.au), Dept. Conservation and Land Management, Western Australia.

1. Does your herbarium have a publicly accessible reference herbarium (a selected set of specimens available for 'hands on' use) Y/N?

2. Please indicate access arrangements for the following categories of people:

Category	1. Access to Main herbarium Y/N?	2. Access to Reference herbarium Y/N?	3. Charged for access to Reference herbarium Y/N?	4. Is your answer to 3 influenced by the user having project funding Y/N?
Staff of your own organisation or Department (other than herbarium staff)				
Staff of other government departments				
Commercial consultants and companies				
Community environmental, naturalist or horticultural groups				
University researchers (staff and postgraduate students)				
University undergraduates				
School staff and students				
Amateur biologists/naturalists				
Casual enquirers				N/A

3. Do you provide a professional advisory service to visitors requesting information on plant identification Y/N?

4. Do you have an externally accessible Web or Internet botanical information system Y/N?

5. Is access to the botanical information in your system (if yes to Q3):

a. Open and uncontrolled?

b. Controlled (e.g through registration) and free?

c. Controlled with fees?

6. What other services do you provide for which charges are made?

7. Do you have a set policy for charging for services Y/N?

6.4. Cost Recovery Analysis

Herbarium User Pays Project

WORKSHEET GUIDE TO ESTIMATING 'FULL COST' OF GOODS AND SERVICES SUPPLIED FROM 1 JULY 2000

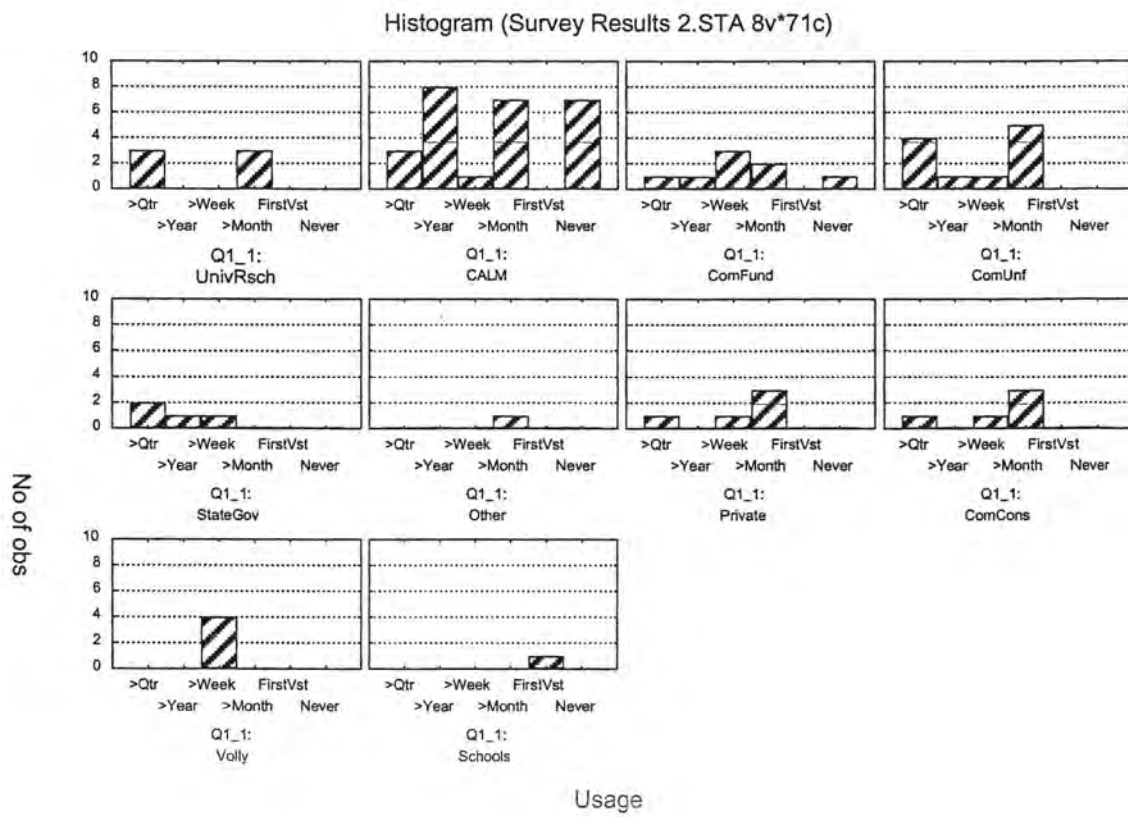
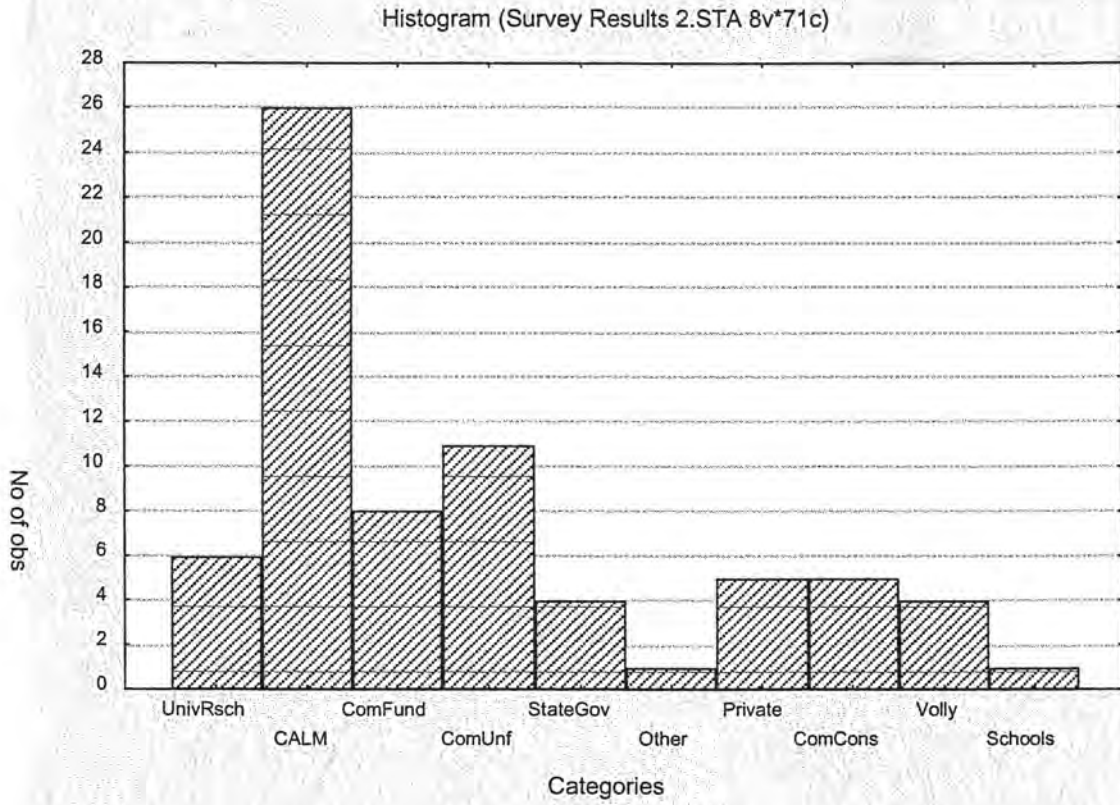
Direct Costs of the Goods/Services

Salaries and Wages (35% Inc)

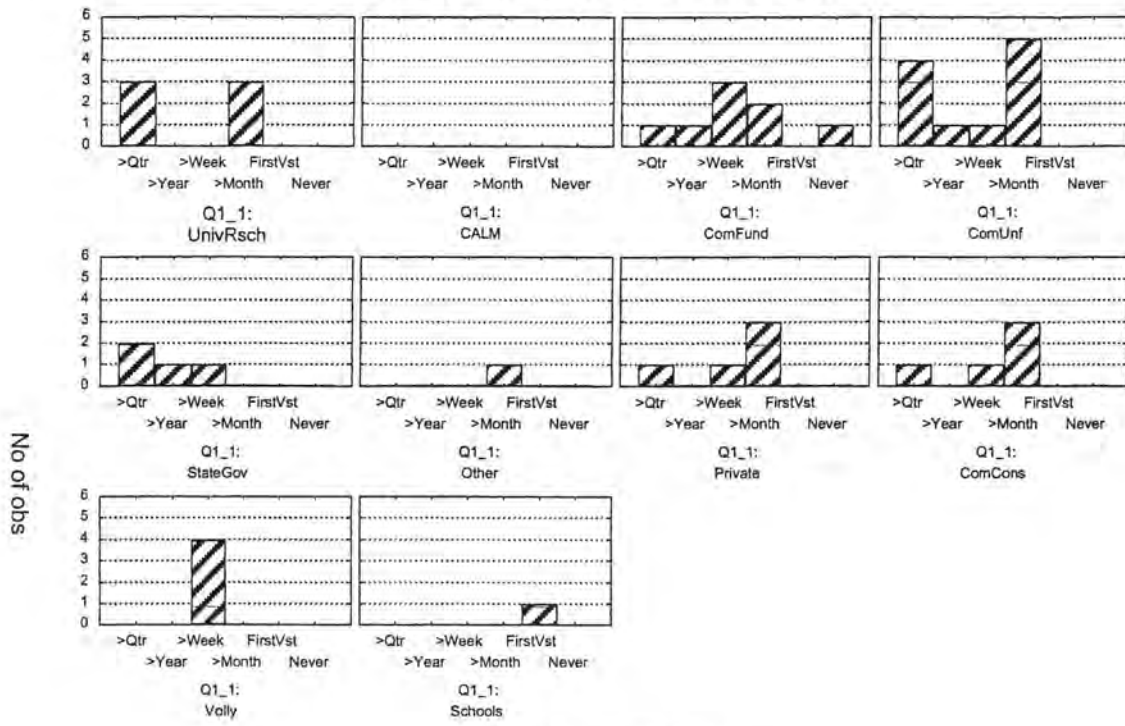
Employee	Salary Level	Hourly rate	Hrs worked	Total cost
Admin 10%	Level 3 - 4th year	\$ 24.63	208	\$ 5,122.60
Reception 30%	Level 1 - 25 years or 9th yr adult service	\$ 19.03	624	\$ 11,873.84
Botanist advice 20%	Level 5 - 4th year	\$ 31.40	416	\$ 13,063.08
Botanist advice 15%	Level 3 - 4th year	\$ 24.63	312	\$ 7,683.90
Botanist advice 10%	Level 2 - 5th year	\$ 21.88	208	\$ 4,550.03
Curation 5%	Level 3 - 4th year	\$ 24.63	104	\$ 2,561.30
Databasing 10%	Level 1 - 25 years or 9th yr adult service	\$ 19.03	208	\$ 3,957.95
Librarian	Level 4 - 3rd year	\$ 26.99	208	\$ 5,614.84
Volunteer input	Level 3 - 4th year	\$ 24.63	832	\$ 20,490.40
<u>All other operating costs</u>				
Material Costs				\$ 2,500.00
Contractor/Equip costs				\$ 3,000.00
Rentals				
Building cost				
Consumables (power, water, telephone, stationary)				\$ 12,500.00
Vehicle fleet costs			Kilometers	
2007R			100	\$ 31.91
Equipment rental or lease costs				
Maintenance and repair costs				
An other direct costs				
Total Direct Costs (in. GST on inputs)				\$ 92,949.85

Less GST Input Credits claimable for any GST paid on inputs inc. in the operating costs above.		\$	1,639.26
Total Direct Costs (net of GST)		\$	91,310.59
Plus Indirect costs met by CALM:			
• General overhead on-cost add on 45% of 'Total Direct Costs (net of GST)	0.45	\$	41,089.76
• Any other 'special' indirect cost not included in the 45% overhead			
Plus where appropriate a 'competitive neutrality' estimated add on of 5% of Total Direct and Indirect costs for 'notional' costs			
	<u>0.05</u>	\$	<u>6,620.02</u>
Total Full Cost of the Goods/Services (net of GST)		\$	<u>139,020.37</u>
Plus 10% GST (except if GST is exempt)			
	<u>0.10</u>	\$	<u>13,902.14</u>
Total 'Full Cost Recovery (inclusive of GST)		\$	<u>152,922.51</u>

Bar Charts From Survey Results

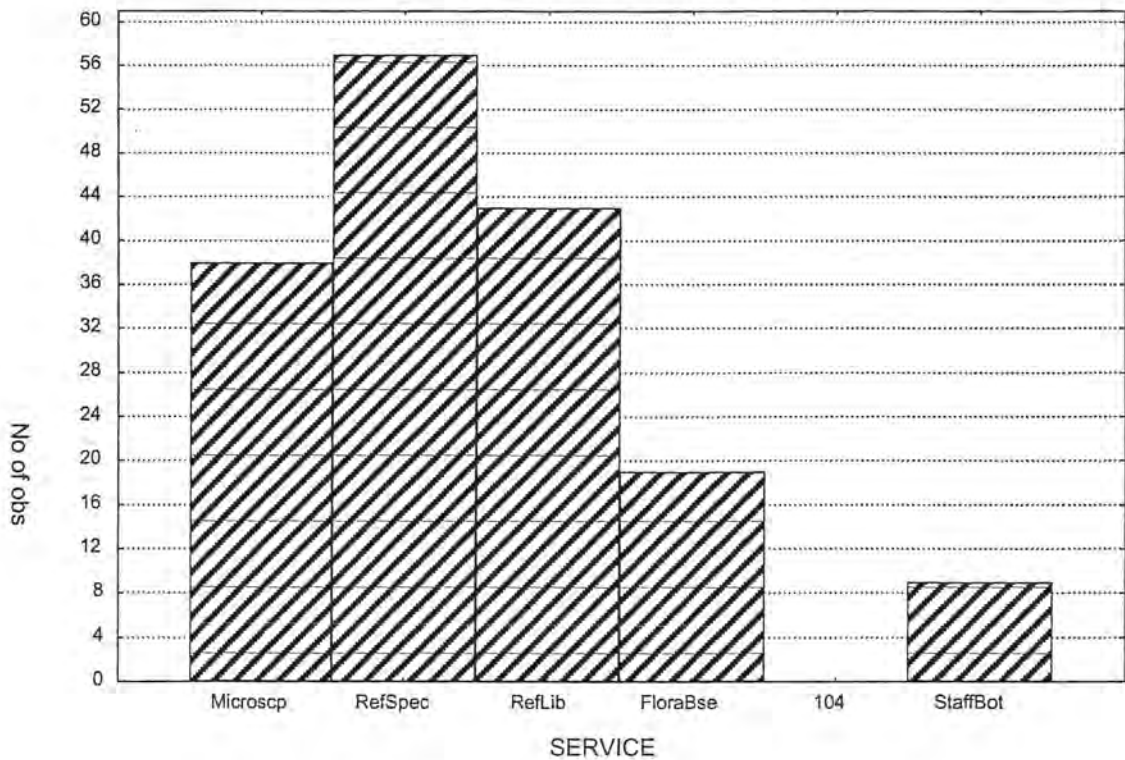


Histogram (Survey Results 2.STA 8v*71c)

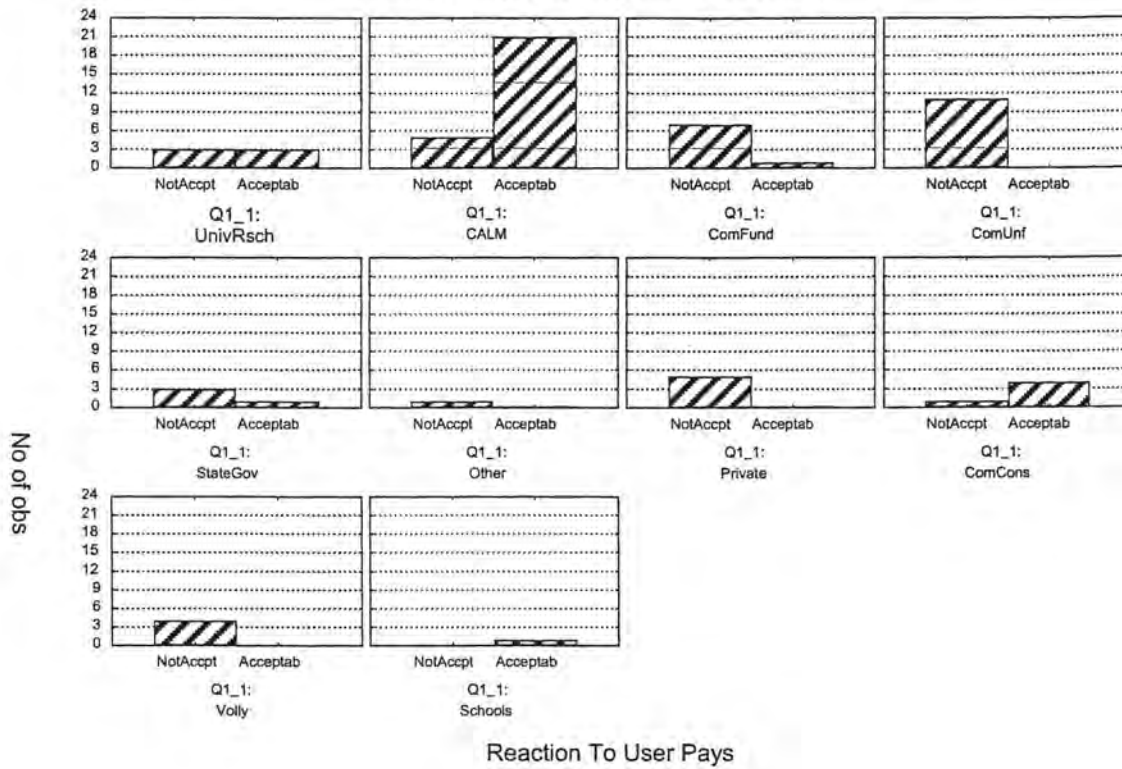


Usage (sans CALM)

Histogram (Services 2.STA 2v*166c)

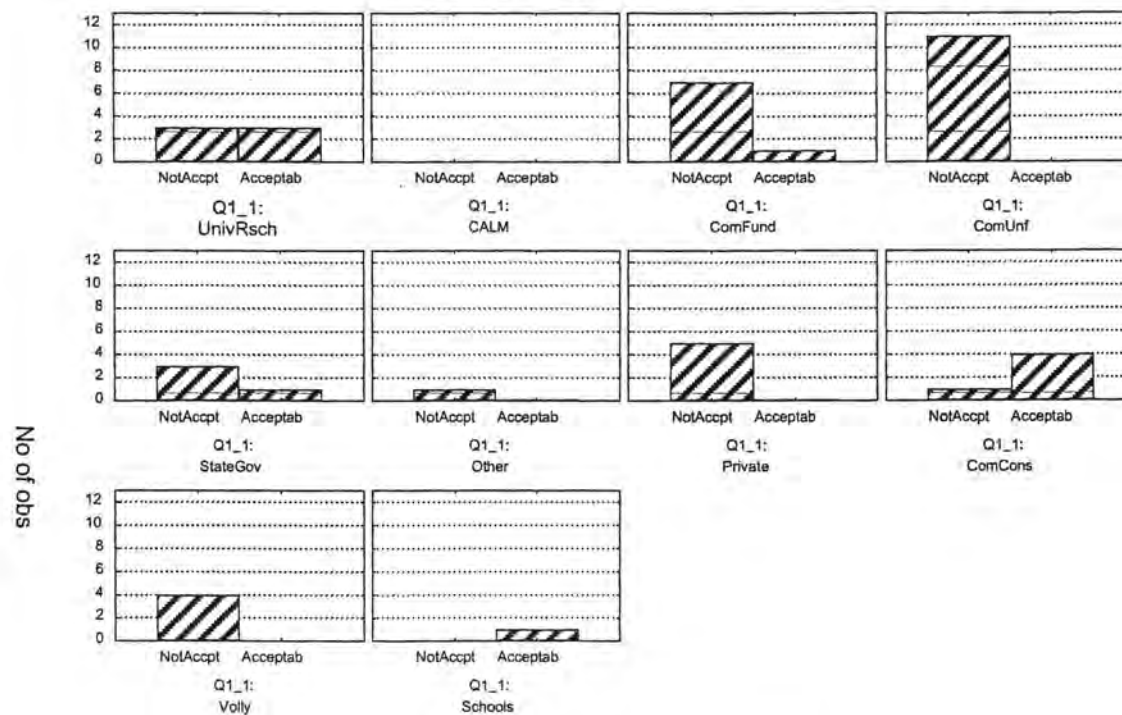


Histogram (Survey Results 2.STA 8v*71c)



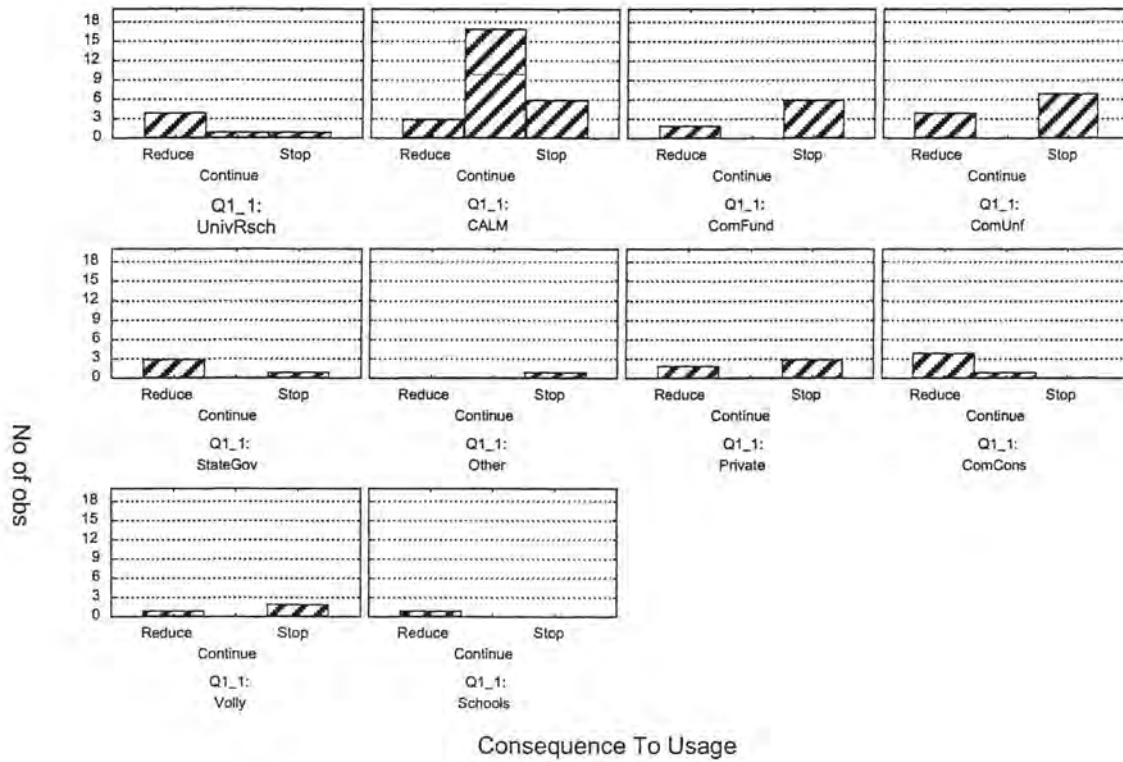
Reaction To User Pays

Histogram (Survey Results 2.STA 8v*71c)

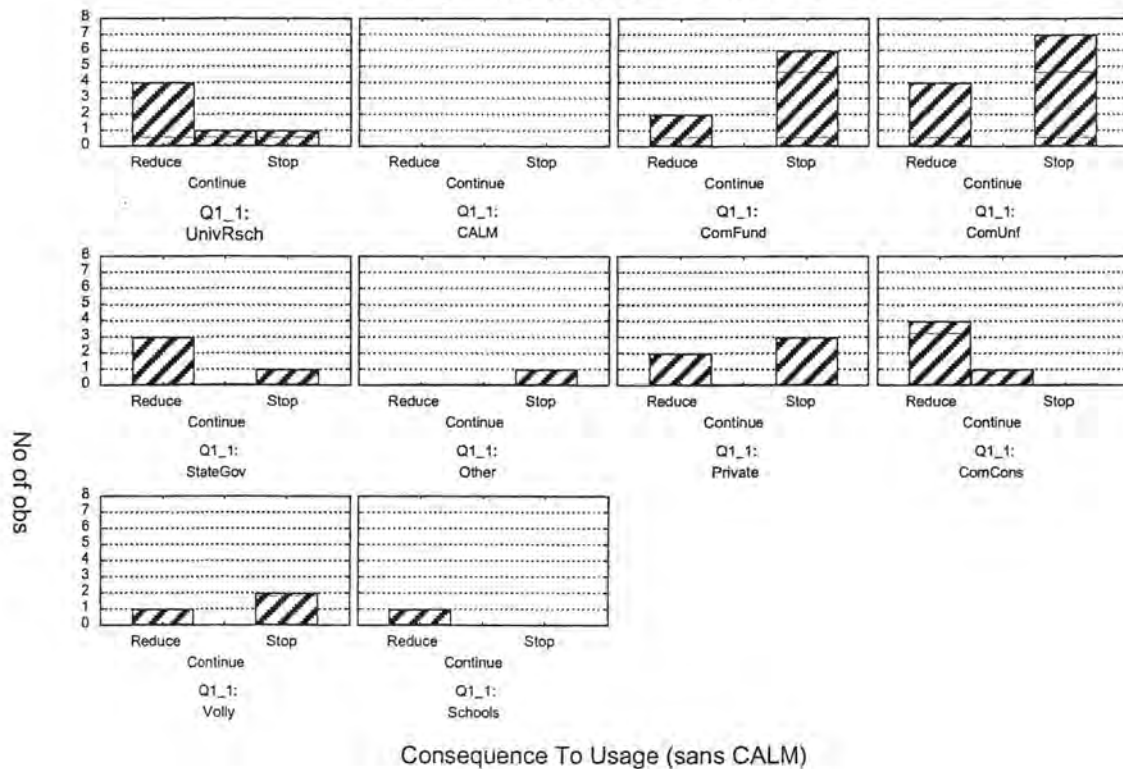


Reaction To User Pays (sans CALM)

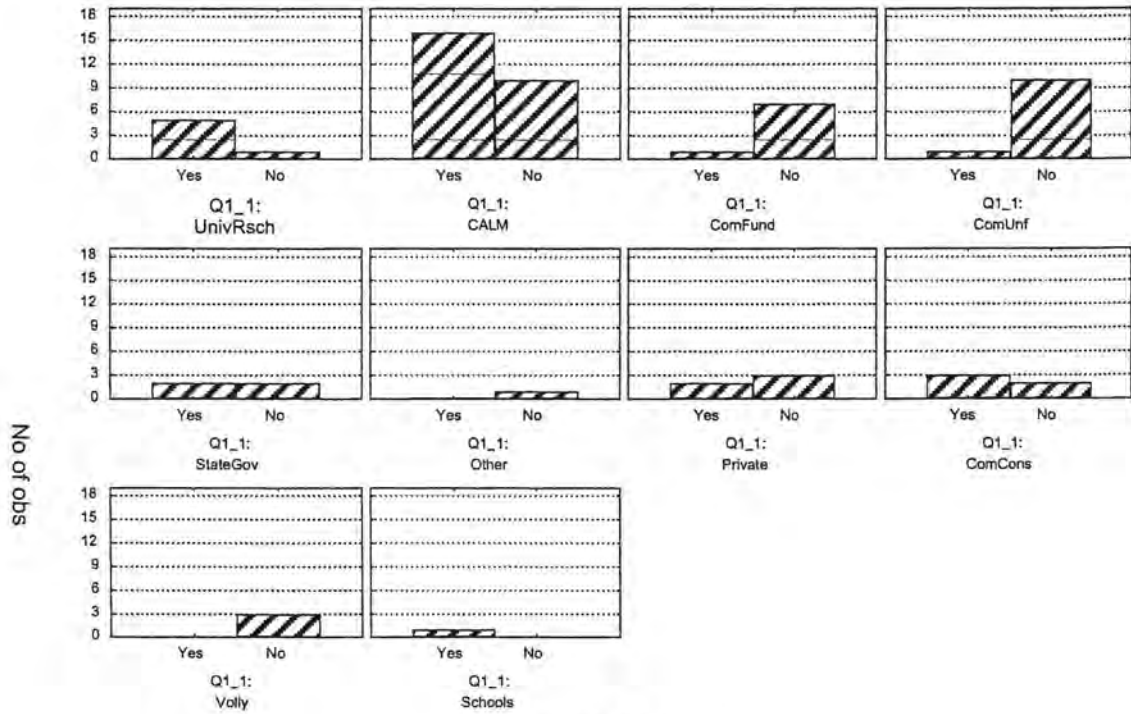
Histogram (Survey Results 2.STA 8v*71c)



Histogram (Survey Results 2.STA 8v*71c)

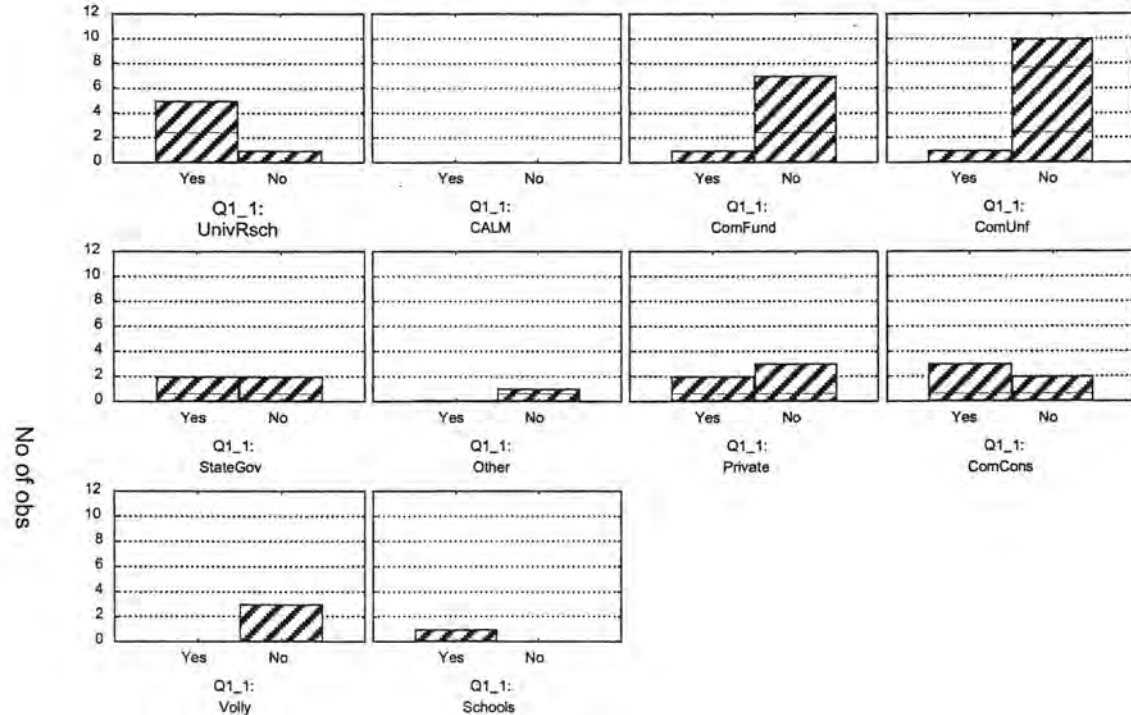


Histogram (Survey Results 2.STA 8v*71c)



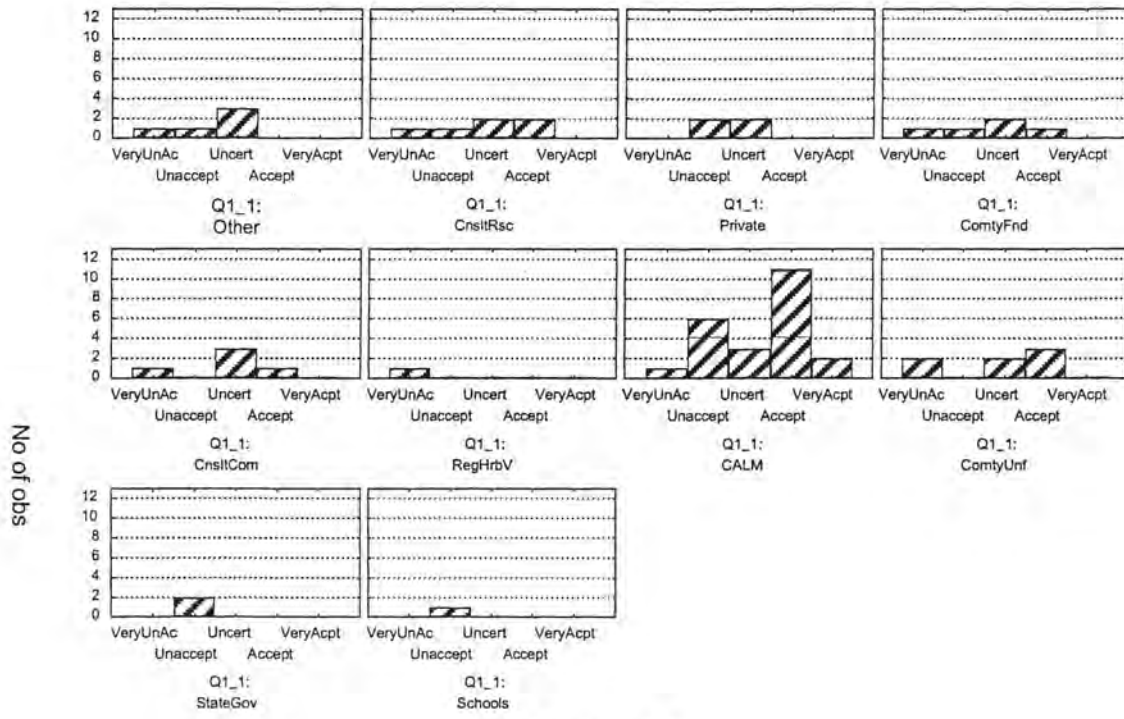
Is It Fair?

Histogram (Survey Results 2.STA 8v*71c)



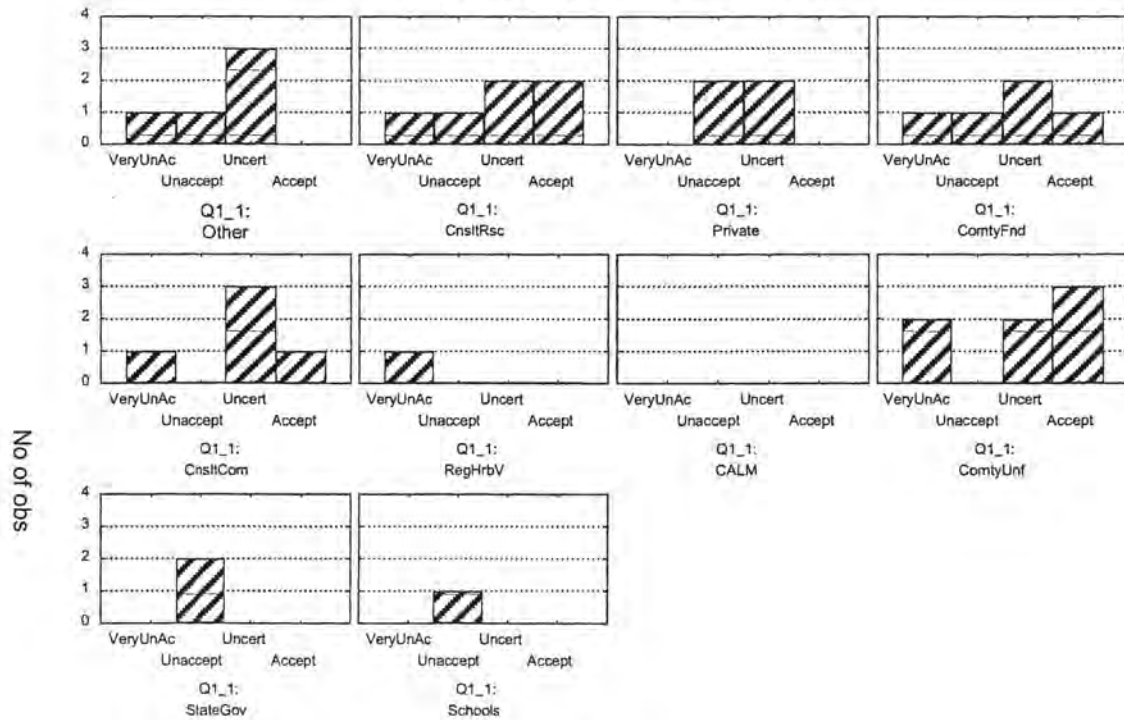
Is It Fair (sans CALM)

Histogram (Survey Results1.STA 8v*60c)



Membership?

Histogram (Survey Results1.STA 8v*60c)

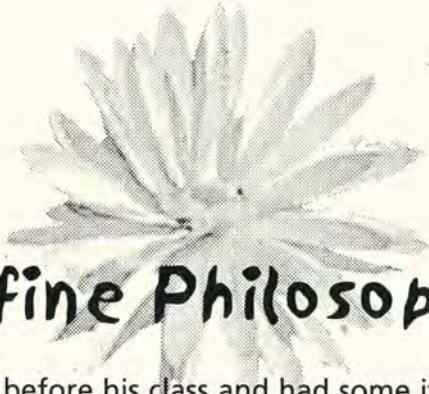


Q3_5

Herbarium User Pays Project

Task Name	Duration	Start	End	Responsible	2001											
					17/06	24/06	01/07	08/07	15/07	22/07	29/07	05/08	12/08	19/08	26/08	
1. Identify current and potential benefits of Reference Herbarium	5.00 w	18/06/01	20/07/01		[Gantt bar from 18/06 to 20/07]											
1.1. Visit Herbarium	0.00 w	26/06/01	26/06/01	All	[Milestone triangle at 26/06]											
1.2. Interview Herbarium staff re current and potential services	2.00 w	18/06/01	29/06/01		[Gantt bar from 18/06 to 29/06]											
1.2.1. Interview NGM, etc.	2.00 w	18/06/01	29/06/01	Paul, Terry	[Gantt bar from 18/06 to 29/06]											
1.3. Identify current and potential user groups	4.00 w	18/06/01	13/07/01		[Gantt bar from 18/06 to 13/07]											
1.3.1. Analyze past visitor records	4.00 w	18/06/01	13/07/01	Paul, Terry	[Gantt bar from 18/06 to 13/07]											
1.3.2. Develop list of questions for both potential user groups	2.00 w	18/06/01	29/06/01	Maria, George	[Gantt bar from 18/06 to 29/06]											
1.3.3. Interview key CALM staff	2.00 w	02/07/01	13/07/01	Maria, George	[Gantt bar from 02/07 to 13/07]											
1.4. Analyze the outputs of above strategies to summarize benefits	1.00 w	16/07/01	20/07/01		[Gantt bar from 16/07 to 20/07]											
1.4.1. Collate data	1.00 w	16/07/01	20/07/01	Terry, Val	[Gantt bar from 16/07 to 20/07]											
2. Evaluate attitudes to "User Pays"	5.00 w	09/07/01	10/08/01		[Gantt bar from 09/07 to 10/08]											
2.1. Survey of current users and other CALM staff re "User Pays"	4.00 w	09/07/01	03/08/01		[Gantt bar from 09/07 to 03/08]											
2.1.1. Design survey questions and areas to be covered	5.50 d	09/07/01	16/07/01	Maria, Terry	[Gantt bar from 09/07 to 16/07]											
2.1.1.1. Make sure survey includes user perceptions of Reference Herbarium	1.00 d	09/07/01	09/07/01	Maria, Terry	[Milestone triangle at 09/07]											
2.1.1.2. Test questions on a sample group	3.00 d	10/07/01	12/07/01	Maria, Terry	[Gantt bar from 10/07 to 12/07]											
2.1.1.3. Modify questions based on feedback	2.00 d	12/07/01	16/07/01	Maria, Paul, Terry	[Gantt bar from 12/07 to 16/07]											
2.1.2. Design survey form	1.00 w	16/07/01	20/07/01	Paul, Consultant	[Gantt bar from 16/07 to 20/07]											
2.1.3. Decide method for administering survey	1.00 w	16/07/01	20/07/01	George, Paul	[Gantt bar from 16/07 to 20/07]											
2.1.4. Implement survey	2.00 w	23/07/01	03/08/01	All	[Gantt bar from 23/07 to 03/08]											
2.1.5. Follow-up a sample of non-responders via telephone	1.00 w	30/07/01	03/08/01	All	[Gantt bar from 30/07 to 03/08]											
2.1.6. Complete survey	0.00 w	03/08/01	03/08/01		[Milestone triangle at 03/08]											
2.2. Analyse results	1.00 w	06/08/01	10/08/01		[Gantt bar from 06/08 to 10/08]											
2.2.1. Identify level of support for Reference Herbarium	1.00 w	06/08/01	10/08/01	Terry, Maria	[Gantt bar from 06/08 to 10/08]											
2.2.2. Identify potential for alienation of current users	1.00 w	06/08/01	10/08/01	Terry, Maria	[Gantt bar from 06/08 to 10/08]											
2.2.3. How much would users be willing to pay for current services	1.00 w	06/08/01	10/08/01	Terry, Maria	[Gantt bar from 06/08 to 10/08]											
2.2.4. Complete analysis of survey results	0.00 w	09/08/01	09/08/01		[Milestone triangle at 09/08]											
3. Evaluate "User Pays" Models	2.00 w	18/06/01	29/06/01		[Gantt bar from 18/06 to 29/06]											
3.1. Benchmarking - explore methods and results of implementation	2.00 w	18/06/01	29/06/01		[Gantt bar from 18/06 to 29/06]											
3.1.1. Develop standard questions	2.00 w	18/06/01	29/06/01	Terry, Val	[Gantt bar from 18/06 to 29/06]											
3.1.2. Contact Herbaria	2.00 w	18/06/01	29/06/01	Terry, Val	[Gantt bar from 18/06 to 29/06]											
3.1.3. Analyze results	2.00 w	18/06/01	29/06/01	Terry, Val	[Gantt bar from 18/06 to 29/06]											
3.2. Describe different models	1.00 w	25/06/01	29/06/01	Terry, Val	[Gantt bar from 25/06 to 29/06]											
4. Provide a broad cost analysis for various proposed options	9.00 w	18/06/01	17/08/01		[Gantt bar from 18/06 to 17/08]											
4.1. Carry out a full cost recovery analysis of current service	2.00 w	18/06/01	29/06/01		[Gantt bar from 18/06 to 29/06]											
4.1.1. Use Excel worksheet of full cost recovery estimates	2.00 w	18/06/01	29/06/01	Val	[Gantt bar from 18/06 to 29/06]											
4.2. Identify proposed alternative charging mechanisms (using current data)	2.00 w	06/08/01	17/08/01		[Gantt bar from 06/08 to 17/08]											
4.2.1. Use data from 1.2.2 and 2.2.3 to develop charging mechanisms	2.00 w	06/08/01	17/08/01	George, Val	[Gantt bar from 06/08 to 17/08]											
4.2.2. Also include the notion of sliding scales for different user groups	2.00 w	06/08/01	17/08/01	George, Val	[Gantt bar from 06/08 to 17/08]											
4.2.3. Develop revenue projections for a test case	2.00 w	06/08/01	17/08/01	George, Val	[Gantt bar from 06/08 to 17/08]											
5. Identify, at a coarser level, alternative options for resourcing	1.00 w	13/08/01	17/08/01		[Gantt bar from 13/08 to 17/08]											
5.1. Collate survey results and other documentation to identify alternative options	1.00 w	13/08/01	17/08/01	George, Val	[Gantt bar from 13/08 to 17/08]											
5.2. Complete summary of alternative options	0.00 w	17/08/01	17/08/01		[Milestone triangle at 17/08]											
6. Produce report and present on recall day	10.00 w	18/06/01	24/08/01		[Gantt bar from 18/06 to 24/08]											
6.1. Provide recommendations	10.00 w	18/06/01	24/08/01		[Gantt bar from 18/06 to 24/08]											
6.1.1. Recommend development and implementation of reference herbarium	10.00 w	18/06/01	24/08/01	All	[Gantt bar from 18/06 to 24/08]											
6.1.2. Draft report	5.43 w	16/07/01	22/08/01		[Gantt bar from 16/07 to 22/08]											
6.1.2.1. Solicit contributions from group members	1.00 w	16/07/01	22/07/01	All	[Gantt bar from 16/07 to 22/07]											
6.1.2.2. Consolidate, apply draft layout	1.00 w	23/07/01	27/07/01	Paul, Terry	[Gantt bar from 23/07 to 27/07]											
6.1.2.3. Team check, correct, independent edit	1.00 w	27/07/01	03/08/01	All	[Gantt bar from 27/07 to 03/08]											
6.1.2.4. Produce powerpoint presentation	1.00 w	03/08/01	10/08/01	Paul, Maria	[Gantt bar from 03/08 to 10/08]											
6.1.2.5. Team check	1.00 w	09/08/01	16/08/01	All	[Gantt bar from 09/08 to 16/08]											
6.1.2.6. Draft final presentation	0.80 w	16/08/01	22/08/01	Paul	[Gantt bar from 16/08 to 22/08]											
6.2. Present report	0.50 w	22/08/01	24/08/01		[Gantt bar from 22/08 to 24/08]											
6.2.1. Team rehearsal	2.50 d	22/08/01	24/08/01	All	[Gantt bar from 22/08 to 24/08]											
6.2.2. Presentation	0.00 w	24/08/01	24/08/01	All	[Milestone triangle at 24/08]											
6.3. Celebrate completion of project with much wine	0.00 w	24/08/01	24/08/01		[Milestone triangle at 24/08]											

Summary Milestone	This week tasks	Completed	Transition	Pending
1. Identify current and potential benefits of Reference Herbarium 5.00 w 18/06/01 20/07/01		C		
1.1. Visit Herbarium 0.00 w 26/06/01 26/06/01 All		C		
1.2. Interview Herbarium staff re current and potential service 2.00 w 18/06/01 29/06/01		C		
1.2.1. Interview NGM, etc. 2.00 w 18/06/01 29/06/01 Paul, Terry		C		
1.3. Identify current and potential user groups 4.00 w 18/06/01 13/07/01		C		
1.3.1. Analyze past visitor records 4.00 w 18/06/01 13/07/01 Paul, Terry		C		
1.3.2. Develop list of questions for both potential users groups 2.00 w 18/06/01 29/06/01 Maria, George		C		
1.3.3. Interview key CALM staff 2.00 w 02/07/01 13/07/01 Maria, George		C		
1.4. Analyze the outputs of above strategies to summarize 1.00 w 16/07/01 20/07/01		C		
1.4.1. Collate data 1.00 w 16/07/01 20/07/01 Terry, Val		C		
2. Evaluate attitudes to "User Pays" 5.00 w 09/07/01 10/08/01		C		
2.1. Survey of current users and other CALM staff re "User Pays" 4.00 w 09/07/01 03/08/01		C		
2.1.1. Design survey questions and areas to be covered 5.50 d 09/07/01 16/07/01 Maria, Terry		C		
2.1.1.1. Make sure survey includes user perceptions of R 1.00 d 09/07/01 09/07/01 Maria, Terry		C		
2.1.1.2. Test questions on a sample group 3.00 d 10/07/01 12/07/01 Maria, Terry		C		
2.1.1.3. Modify questions based on feedback 2.00 d 12/07/01 16/07/01 Maria, Paul, Terry		C		
2.1.2. Design survey form 1.00 w 16/07/01 20/07/01 Paul, Consultant		C		
2.1.3. Decide method for administering survey 1.00 w 16/07/01 20/07/01 George, Paul		C		
2.1.4. Implement survey 2.00 w 23/07/01 03/08/01 All		C		
2.1.5. Follow-up a sample of non-responders via telephone 1.00 w 30/07/01 03/08/01 All		C		
2.1.6. Complete survey 0.00 w 03/08/01 03/08/01		C		
2.2. Analyse results 1.00 w 06/08/01 10/08/01		C		
2.2.1. Identify level of support for RH 1.00 w 06/08/01 10/08/01 Terry, Maria		C		
2.2.2. Identify potential for alienation of current users 1.00 w 06/08/01 10/08/01 Terry, Maria		C		
2.2.3. How much would users be willing to pay for current 1.00 w 06/08/01 10/08/01 Terry, Maria		C		
2.2.4. Complete analysis of survey results 0.00 w 09/08/01 09/08/01		C		
3. Evaluate "User Pays" Models 2.00 w 18/06/01 29/06/01		C		
3.1. Benchmarking - explore methods and results of implementation 2.00 w 18/06/01 29/06/01		C		
3.1.1. Develop standard questions 2.00 w 18/06/01 29/06/01 Terry, Val		C		
3.1.2. Contact Herbaria 2.00 w 18/06/01 29/06/01 Terry, Val		C		
3.1.3. Analyze results 2.00 w 18/06/01 29/06/01 Terry, Val		C		
3.2. Describe different models 1.00 w 25/06/01 29/06/01 Terry, Val		C		
4. Provide a broad cost analysis for various proposed options 9.00 w 18/06/01 17/08/01		C		
4.1. Carry out a full cost recovery analysis of current service 2.00 w 18/06/01 29/06/01		C		
4.1.1. Use Excel worksheet of full cost recovery estimates 2.00 w 18/06/01 29/06/01 Val		C		
4.2. Identify proposed alternative charging mechanisms (user) 2.00 w 06/08/01 17/08/01		C		
4.2.1. Use data from 1.2.2 and 2.2.3 to develop charging 2.00 w 06/08/01 17/08/01 George, Val		C		
4.2.2. Also include the notion of sliding scales for different 2.00 w 06/08/01 17/08/01 George, Val		C		
4.2.3. Develop revenue projections for a test case 2.00 w 06/08/01 17/08/01 George, Val		C		
5. Identify, at a coarser level, alternative options for resourcing 1.00 w 13/08/01 17/08/01		C		
5.1. Collate survey results and other documentation to identify 1.00 w 13/08/01 17/08/01 George, Val		C		
5.2. Complete summary of alternative options 0.00 w 17/08/01 17/08/01		C		
6. Produce report and present on recall day 10.00 w 18/06/01 24/08/01		C		
6.1. Provide recommendations 10.00 w 18/06/01 24/08/01		C		
6.1.1. Recommend development and implementation of risks 10.00 w 18/06/01 24/08/01 All		C		
6.1.2. Draft report 5.43 w 16/07/01 22/08/01		C		
6.1.2.1. Solicit contributions from group members 1.00 w 16/07/01 22/07/01 All		C		
6.1.2.2. Consolidate, apply draft layout 1.00 w 23/07/01 27/07/01 Paul, Terry		C		
6.1.2.3. Team check, correct, independent edit 1.00 w 27/07/01 03/08/01 All		C		
6.1.2.4. Produce powerpoint presentation 1.00 w 03/08/01 10/08/01 Paul, Maria		C		
6.1.2.5. Team check 1.00 w 09/08/01 16/08/01 All		C		
6.1.2.6. Draft final presentation 0.80 w 16/08/01 22/08/01 Paul		C		
6.2. Present report 0.50 w 22/08/01 24/08/01			T	
6.2.1. Team rehearsal 2.50 d 22/08/01 24/08/01 All		C		
6.2.2. Presentation 0.00 w 24/08/01 24/08/01 All			T	
6.3. Celebrate completion of project with much wine 6.3. Celebrate completion of project with much wine 0.00 w 0.00 w 24/08/01 24/08/01 24/08/01 24/08/01			T	



A fine Philosophy

A philosophy professor stood before his class and had some item in front of him. When the class began, wordlessly he picked up a large empty mayonnaise jar and proceeded to fill it with rocks, rocks about 2" in diameter. He then asked the students if the jar was full?

They agreed that it was.

So the professor then picked up a box of pebbles and poured them into the jar. He shook the jar lightly. The pebbles, of course, rolled into the open areas between the rocks. He then asked the students again if the jar was full.

They agreed it was.

The students laughed. The professor picked up a box of sand and poured it into the jar.

Of course, the sand filled up everything else. "Now," said the professor, "I want you to recognise that this is your life. The rocks are the important things—your family, your partner, your health, your children—things that if everything else was lost and only they remained, your life would still be full.

The pebbles are the other things that matter like your job, your house, your car. The sand is everything else. The small stuff." "If you put the sand into the jar first, there is no room for the pebbles or the rocks. The same goes for your life. If you spend all your time and energy on the small stuff, you will never have room for the things that are important to you.

Pay attention to the things that are critical to your happiness.

Play with your children. Take time to get medical checkups. Take your partner out dancing. There will always be time to go to work, clean the house, give a dinner party and fix the disposal." "Take care of the rocks first—the things that really matter. Set your priorities.

The rest is just sand."

But then...

A student then took the jar which the other students and the professor agreed was full, and proceeded to pour in a glass of beer. Of course the beer filled the remaining spaces within the jar making the jar truly full.

The moral of this tale is:

That no matter how full your life is, there is always room for BEER.