

MINUTES OF THE MEETING  
LONG-RANGE PLANNING SUBCOMMITTEE  
MONTANA STATE  
HOUSE OF REPRESENTATIVES

January 29, 1985

The meeting of the Long-Range Planning Subcommittee was called to order by Chairman Robert Thoft on January 29, 1985 at 8:08 a.m. in Room 420 of the State Capitol.

ROLL CALL: All members were present.

DEPARTMENT OF INSTITUTIONS MAINTENANCE PROGRAMS: Curt Chisholm (31:B:013), Deputy Director, Department of Institutions (D of I) passed out a memo which the department had sent to every state institution (EXHIBIT 1). The memo instructed division administrators about prioritizing long-range building program projects. Mr. Chisholm gave committee members the department's prioritized project list which was submitted to the Architecture and Engineering Division (EXHIBIT 2). This list shows the projects which are ranked in the Executive Budget highlighted in yellow. Each project's ranking in the Executive Budget appears in the lefthand margin. In addition to these projects Mr. Chisholm (31:B:127) said the department is asking for an extension on the authorization granted in the 1983 session to demolish certain buildings for salvage value.

Chairman Thoft (31:B:145) told Mr. Chisholm the subcommittee has received a letter from Representative Waldron requesting funding for the purchase of pictures for the walls of the Youth Treatment Center in Billings. Chairman Thoft said he is not certain as to where funding for this should come from. Mr. Chisholm said he did not have a problem with Representative Waldron's recommendation because the walls of the center are stark. He said the project is not completed yet but it might be possible to use some of the remaining funding for artwork.

Mr. Chisholm described six maintenance projects to the committee using the "Capital Construction Program 1985-1987 State of Montana" book (Exhibit 3, 1-10-85).

Roof Repair and Replacement, Boulder River School and Hospital and Mountain View School (31:B:198)

This project will replace the cafeteria roof at Mountain View School and repair the paint shop roof at Boulder River School and Hospital (BRS&H). The total cost of the project is \$18,500. The cafeteria roof at

Mountain View School is 18 years old and has leaked continually over the past several years. Mr. Chisholm said the funding will also be used for some patching of the hospital roof at BRS&H. Mr. Chisholm said the department has maintenance responsibilities for 200 buildings. Over the last six bienniums the average dollar amount spent on roof repair and replacement is \$380,000 per biennium. This biennium the department is only requesting \$18,500. Phil Hauck, Administrator, Architecture and Engineering Division (A&E) said the average life expectancy of a roof is 20 years.

Senator Fuller (31:B:275) asked if the cafeteria roof is flat. Tom O'Connell, Chief, Facility Planning Bureau, A&E said the roof has some slope for drainage but this project will add more of a pitch. Senator Van Valkenburg asked if this is a small roof since the price seems low. Mr. Hauck said this project will only replace part of the roof. One half of the roof does not need replacement.

Senator Fuller (31:B:293) asked if the paint shop at Boulder is a building that will continue to be used if the facility is reduced in size. Mr. Chisholm said the paint shop is scheduled for demolition in the new long-range plan for Boulder. Mr. O'Connell said this building will not be replaced under the new plan for Boulder until Phase II and it needs to be repaired before Phase II if it is to be useful.

#### Expand Sanitary Sewer System, Montana State Prison

Daniel Russell (31:B:335), Administrator, Corrections Division, D of I gave a brief history on the sanitary sewer system problems at the prison. He said in July 1983 they were advised that the sewer system could not withstand any increased usage. In August of 1983 the department authorized a study to determine the status of the sewage system. The results of the study indicated 4 of the 6 sewage ponds were 18" over the maximum water level allowed, one 5" over and one is within 15" of the maximum level. The report recommended the pond inlets be combined and flow measuring devices installed, aeration systems needed to be installed in three of the existing ponds and a sprinkler irrigation system installed to dispose of the effluent. The original cost estimate was \$250,000 but the bid came in at \$398,500. Mr. Russell said there is no way the population at the prison can continue to be increased without updating the sewage system. Mr. Russell said there is \$88,000 left in Phase 4 funding after all the bids have been let. This money together with the \$250,000 appropriated in the 1983 Session for

this project totals \$338,000, which leaves a shortfall of \$60,500 between funds available and the lowest bid received on the project.

Representative Ernst (31:B:414) asked why the project was not rebid. Mr. Chisholm said the price of the project was determined by the lowest bid and the only way to get a lower bid will be to change project specifications. Mr. Russell said Phase 4 of the prison expansion project has been cut back, it has no frills and specifications cannot be cut further.

Senator Tveit (31:B:446) asked for a further explanation of the sprinkler system. Mr. Russell said a holding pond will be built from which the effluent will be pumped and sprinkled by handline onto 80 acres. Senator Tveit (31:B:507) asked what the add on population of the prison could be with this system. Mr. Russell said the prison has 791 inmates to date and this system could accommodate 1150. Mr. Hauck said the sprinkler system is a small portion of the total project cost.

Senator Van Valkenburg (31:B:550) asked if the sewage system was designed for a maximum of 1150 inmates. Mr. Hauck said if the prison population get bigger that 1150 inmates an aeration system will have to be used to dispose of the effluent and the sewer lagoons existing can still be used with this type of system.

Install Sewage Treatment Plant, Swan River Youth Forest Camp

Mr. Chisholm (31:B:596) gave a brief history of the problem at the Swan River Youth Forest Camp. He said the facility was designed to accomodate 50 individuals and only several septic tank drain fields were installed. Early on effluent was found seeping through the ground. Sewage is now openly flowing on the top of the ground and on to Forest Service land. Last session D of I was given \$8,000 in funding to have a study done on the problem.

Mr. Chisholm provided the committee with a copy of the sewage disposal study (EXHIBIT 3). The study indicates an aerobic digestion in an aerated lagoon with disposal in percolation ponds is the best remedy to the sewage system problems at Swan River. The recommendation is based on the local soil conditions, wetness of the ground and the severe winter conditions in the area. This option is one of three recommended in the report. This option is more costly to construct but less costly to maintain over a 20 year period. Mr. Chisholm said

the department has been put on notice by the Lake County Sanitarian, the Forest Service has verbally warned D of I to take care of the problem or they will take official action and the Water Quality Bureau has said once the raw seepage gets close to the creek they will have to take action and possibly close the school. Mr. Chisholm said the raw sewer seepage creates a high potential for disease.

Representative Ernst (32:A:31) asked how long it will take to build the new system. Mr. Chisholm said construction could begin in late summer if funds are appropriated.

Senator Van Valkenburg (32:A:036) asked what the chances are the bid will come in at a price higher than the appropriation. Mr. Hauck said they hope this will not happen. Mr. Russell said the consultant indicated the system has been implemented in other areas and tested. Senator Van Valkenburg (32:A:082) asked if under current law there is any way the state could do the work on the project and not have to put it out for bid. Melvin Mohler (32:A:088), Superintendent, Swan River Youth Forest Camp said they do have people who handle heavy equipment but, no one on the staff or in the institution has the expertise to install the system. Senator Van Valkenburg said he is concerned about bids coming in higher than cost estimates for projects. Mr. Hauck said this cost estimate should be realistic. He also pointed out that A&E has far more projects bid within cost estimates than those that are not. Mr. Hauck said if the bid should come in too high there are deductive alternates that can be used to get it lower. Senator Van Valkenburg said his main concern about the cost estimate being too low is that if the appropriation is not enough then the school might be faced with possible closure. Mr. Hauck said high bids can be controlled by alternate bids and if the low bid is still high A&E can use budget amendments to come up with funds. Mr. Hauck said the state is not geared to hiring their own staff of professionals to do construction work because the law states A&E must get bids on major work projects. Mr. Chisholm (32:A:195) suggested they get the consulting engineer to revalidate the project cost. Mr. O'Connell said A&E will do this.

Representative Bardanouve (32:A:359) asked how reliable the engineering firm is who performed the study. Mr. Hauck said the firm is very reliable and has been in Missoula for a long time. Representative Bardanouve asked which firm is being criticized by the Board of Health for improper engineering of water projects.

Mr. Hauck said that is a different firm from the one that did the study.

General Maintenance and Repair, Montana State Hospital

Mr. Chisholm (32:A:315) said this project combines four major repair items on the campus of the Montana State Hospital at Warm Springs. The entire cost of the project will be \$61,470.

The first repair item will replace 24 shower stalls in the alcohol treatment center at Galen. The shower stalls are metal and the bases around the showers leak. They are over 30 years old.

The leakage is eventually going to ruin the floor and the ceiling below the showers, it is also unsanitary and unhealthy. New valves and drains will be installed and 24 new shower stalls will be added for a total cost of \$17,150.

The second repair item will be done in the Warren Building where there are 105 patient beds for long-term mentally ill patients. The floor coverings in this building are wearing out in the day halls and in some situations the wear is into the subflooring. These day halls also have poor lighting and the department would like to install better lighting so that the atmosphere will be more pleasant for patients recreating in this room. The department is also asking that a security fence be placed around the south and east ends of the building to provide for more outdoor recreation for the patients in Warren. The total cost of these items is \$30,060.

The third repair item will provide for a larger and higher fenced area for outside recreation for patients in the Spratt Building. This building is a long-term care facility for geriatric psychiatric patients. It is the only licensed and certified building on the campus and it is licensed as a 60 bed intermediate care facility. The fence is needed to provide for outdoor recreational activities for the patients in the building. Cost of fencing is estimated to be \$2,960.

The fourth repair item in this project is to improve the loading docks at the central laundry system for Galen, Warm Springs and the prison. Currently a tailgate hoist is used to load and unload laundry at the docks. A walkway extension will allow for a more efficient method of loading and unloading laundry. Cost of this item is \$11,300.

Handicapped Access/Building Modification, Montana State Hospital

Mr. Chisholm (32:A:437) said this project provides for better handicapped access to a number of buildings at the Warm Springs campus. In January and February of 1983 the campus was inspected by the Office of Civil Rights, Department of Health and Human Services. The routine inspection was to determine if the institution was in compliance with the Civil Rights Act of 1967 and Section 504 of the Rehabilitation Act of 1973. These inspections are performed at any facility which receives federal financial participation in the form of Medicare or Medicaid. Mr. Chisholm said a few examples of deficiencies found are: a) a need for handicapped parking access; b) drinking fountains and telephones need to be lowered; c) bathrooms must be modified to accommodate handicapped access and d) elevators need to have braille installed for the blind. He said A&E told the department it is not financially feasible to make the entire Warm Springs campus handicap accessible. However, they are proposing to eliminate most deficiencies.

Representative Bardanouve (32:A:544) asked how many of the institution's employees are handicapped. Mr. Chisholm said he did not know exactly, but the law states a qualified handicapped individual must be able to enter the work place. Representative Bardanouve asked if the department has begun to do some of the more minor modifications, such as lowering phones and placement of signs, out of their operating budget. Mr. Chisholm said no, but that the major costs involved are in building ramps and modifying bathrooms.

Senator Van Valkenburg (32:A:589) asked if all of the modifications being proposed are to be done at Warm Springs and not Galen. Mr. Chisholm said no modifications were needed at Galen. Senator Van Valkenburg said he has been told by a Missoula physician that a handicapped patient was denied admission to Galen because there is no access for the handicapped. Mr. Chisholm said Galen has many handicapped patients. Senator Van Valkenburg (32:A:619) asked if the Denver Civil Rights Office has lead the department to believe that the proposed modifications will satisfy their concerns. Mr. Chisholm said Senator Van Valkenburg's statement is partially correct. He does not want to mislead the committee, the proposed modifications will not bring the institution into full compliance but it will take care of most of the serious and noticable deficiencies. He said he felt it is highly unlikely that the Denver

office will bring suit against the state if the institution is not in full compliance. Mr. Chisholm said if the institution modifies its policies somewhat to accommodate both handicapped patients and visitors he feels it will be more economical than bring every facility into compliance. He gave the example of remodeling one bathroom in a facility, placing signs to call this to handicapped individual's attention, (as to where the bathroom is located) or taking handicapped patients to one bathroom rather than remodeling every bathroom in the facility to comply with handicapped access.

Modify Intake Building, Montana State Hospital

Mr. Chisholm (32:B:005) said the institution is in an awkward position when patients who are admitted say they have private insurance coverage and the institution has to inform them that the facility is not licensed and, therefore, their private insurance company will not pay the institution's bills. The institution is not eligible to receive Medicare or Medicaid reimbursement for the same reasons. The Intake Building houses 24 acute care beds, a medical clinic, lab, radiology department and dental suites. The Department of Health and Environmental Sciences found 36 deficiencies when they surveyed the facility for licensure. All patients are admitted to the institution through the Intake Building. If the deficiencies are corrected private insurers could be billed for patient care and Medicare and Medicaid reimbursement could be applied for because the institution will be licensed and certified as a psychiatric hospital.

Mr. Chisholm (32:B:055) said based on reasonable costs and historical admissions \$221,000 a year could be recovered in federal and private insurance reimbursement. At this rate the original capital investment costs will be recovered in a year and a half.

Senator Fuller (32:B:074) asked how the facility is out of compliance. Mr. Chisholm said they will need to provide for better oxygen storage, replace three doors and put in fire rated walls. The department is also recommending two additions be made to the building, one a multipurpose room for eating and the second a storage area for ancillary medical equipment. Mr. Chisholm said he has a list of the specific deficiencies and he will supply the committee with a copy of the list. Senator Fuller asked if all of the changes on the list are required for licensure. Mr. Chisholm said yes.

Senator Van Valkenburg (32:B:100) asked how soon the facility could be licensed. Mr. Chisholm said the project will take at least a year to complete and reimbursement funds would be applied for in the second biennium. Senator Van Valkenburg asked if the \$221,000 in reimbursement is figured into D of I's operating budget at this point. Mr. Chisholm said the money collected in reimbursement goes into the general fund.

EXECUTIVE ACTION: Madalyn Quinlan (32:B:150), Staff Analyst, Legislative Fiscal Analyst Office told committee members they had approved all Statewide Cultural and Aesthetic Projects for recommended funding except, #110, #121, #122, #132, #141, #147, #162 and #166.

#### Cultural and Aesthetic Capital Expenditure Projects

Chairman Thoft said he felt the museum mill levy should play an important role in considering which projects receive funding in this category. Representative Ernst (32:B:182) said there are extenuating circumstances involving the mill levies. He said the county commissioners can use revenue sharing as means of supporting museums and that will not be reflected on the committee's chart which lists the counties levying the museum mill. Bill Pratt, Organizational Services Director, Montana Arts Council said he did have information on revenue sharing and will inform the committee of which projects have this money available.

Senator Tveit (32:B:210) expressed his concerns about the amount of funds going to urban areas and not to rural areas. He submitted a letter received from Mr. Charles Banderob on this subject (EXHIBIT 4). He questioned the large amount recommended for the Fox Theatre project and pointed out rural projects such as the Sunnyside Library which are recommended for no funding. Carolyn Ennis, Chairman, Cultural and Aesthetic Projects Advisory Committee said the Sunnyside Library project lacked cultural and aesthetic aspects. The committee also did not think the small library needed a computer to keep track of their small book collection. Ms. Ennis said she would prefer not to comment on the Fox Theatre project because she is involved as a board member on the project. Bill Pratt said even though there appears to be a conflict of interest on the Fox Theatre project this did not occur. He said getting a grant will be symbolic of the state's approval of the project and will enable the local group to raise further funding at a community level.



Senator Van Valkenburg (32:B:322) said the theatre is owned by the city and the Fox Theatre Corporation operates it. The corporation has already raised \$3 million in local funds and is only asking for one-fortieth of the total project budget.

Senator Tveit (32:B:377) asked how the committee came up with the \$103,900 as a recommendation for funding. Ms. Ennis said in the project criteria the committee chartered a project's revenues against its expenses and the amount of recommended funding is based on a shortfall between the two and the overall amount of coal tax funds available. All the projects were reviewed using the same criteria. The Fox Theatre had a shortfall of \$103,900.

Chairman Thoft asked if the same stamp of approval would be given to the project if the committee were to fund it at something less than \$103,000. Mr. Pratt said yes.

Representative Bardanoue (32:B:438) asked if Ms. Ennis took part in the committee's recommendations to allocate the money. She said as chairman of the committee she remained neutral and only voted if a tie occurred on a particular project. She said there was not a tie vote on the Fox Theatre project.

Senator Tveit said he felt the committee had recommended too little funding on some of the smaller projects. He used Stacey Hall as an example their request was for \$29,733 and they are only recommended to get \$15,000. A small community like Volborg does not have a population base large enough to collect the difference. But a community the size of Billings does have a larger base to deal with. Senator Van Valkenburg (32:B:496) said he thought the issue with Stacey is that the building is going to be used for social activities as well as cultural and historical and he said he felt the community should apply to the Coal Board for impact funds.

Representative Bardanoue (32:B:529) said he had concerns about the following projects: a) #118 Laurie Hill Library, should the committee set a precedent of buying books for libraries; b) #133, Powell County Museum and Arts Foundation, the state already gave them the old prison building and in 1983 they were given a cultural and aesthetic grant and allowed the funds to revert; and c) #117, Broadway 215, Inc., he said the testimony on this project called it an economic development project and that concerns him. Representative Bardanoue said he thought the capital

expenditure projects are a miniture long-range building program for cultural and aesthetic projects. Senator Van Valkenburg (32:B:617) said these projects deal with nonprofit groups and local governments that do not have the wherewithal to spend on capital expenses.

Chairman Thoft (32:B:103) asked Ms. Ennis to review project #103. Ms. Ennis said this project is for the second phase of the restoration of the old city hall building in Anaconda. She said the committee felt there is no end in sight for the completion of the renovation project and the local funding for it is limited. She said the project had merit because the building will be used for cultural and aesthetic activities but the committee felt they should look for restoration funds in areas other than just this program. Chairman Thoft asked if they have reached the point where the building can be occupied. Ms. Ennis said no.

Senator Van Valkenburg (33:A:011) said he did not get the impression from the testimony on project #117 that it was an economic development project. Ms. Ennis said the committee did not consider it as anything other than a cultural and aesthetic project. She said the committee is also sensitive about the issue of using program funds for capital expenditures and that is why so few projects are recommended for funding in this category.

Representative Bardanouve (33:A:046) asked if the Helena Civic Center had received funding in the 1983 session. Mr. Pratt said yes they received \$10,000. Chairman Thoft asked if the Helena Civic Center and The Grandstreet Theatre didn't do the same kinds of activities. Ms. Ennis said yes. Mr. Pratt said the Civic Center can hold 2,000 people and the Grandstreet only 199. Ms. Ennis said the committee did not doubt the needs of the Grandstreet Theatre but their proposal did not demonstrate financial support of the project and the Helena Civic Center proposal did.

Representative Bardanouve (32:A:095) revoiced his concerns about the Laurie Hill Library proposal. He said he is concerned about the concept of buying books for a library. Ms. Ennis said the library is a local subscription library in a remote area and was conceived out of necessity. She said the community has raised funds to develop the library and the project funds will be used to purchase books. The community will pay for all other library expenses.

Chairman Thoft asked why the library does not get public funding. Senator Van Valkenburg said it is not a public library. Representative Bardanouve (33:A:150) asked if they have sought funding from the Montana Library Commission and other sources. Ms. Ennis said they are exploring other areas of funding.

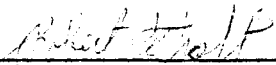
Senator Tveit (33:A:171) said the Helena Civic Center is used as much for social activities as cultural activities, just like Stacey Hall. This project (#111) originally requested \$75,000 and it is nothing more than a remodeling project. Ms. Ennis said that in any cultural and aesthetic program a portion of the funds have to go to facility maintenance or remodeling because without the facility there is no place to display or give the appearance of cultural programming. She said the committee felt Stacey Hall and the Helena Civic Center are similar projects and only recommended funding on the cultural aspects of these proposals.

Chairman Thoft asked the committee to consider recommending funding for all projects in the capital expenditure category except for those which had been flagged by members concerns. Senator Tveit asked if the committee was to consider all projects or just those recommended by the advisory committee for funding. Chairman Thoft said that at anytime the committee can consider or reconsider any action they have taken on recommended, nonrecommended and modified projects. Representative Bardanouve (33:A:244) said he felt the committee is wasting its time if they are to just approve funding for projects based solely on the advisory committee's recommendations. He said he felt the hearings are a farce if the subcommittee does not have the right to change or review projects as it feels necessary. Senator Tveit said he felt the committee needs to rely on the work of the advisory committee and feels they have done an overall good job. Chairman Thoft said he did not feel the committee needs to go through each project individually and approve it for funding.

Senator Van Valkenburg (33:A:289) moved that the committee approve all projects in the cultural and aesthetic capital expenditure category for recommended funding except, #94, #111, #117 and #133. Chairman Thoft asked Senator Van Valkenburg to consider holding out #118 also on the basis that there will be a presentation at a later date on possible library funding sources available to Heron. Senator Van Valkenburg said it was not excluded in his motion. Chairman Thoft (33:A:322) asked for a roll call vote. The motion passed.

Long-Range Planning Subcommittee  
January 29, 1985  
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There being no further business before the subcommittee  
the meeting adjourned at 11:00 a.m.

  
ROBERT THOFT, Chairman

DAILY ROLL CALL  
LONG RANGE PLANNING SUB COMMITTEE

49th LEGISLATIVE SESSION -- 1985

Date January 29, 1985

[illegible]

ROLL CALL VOTE

SUBCOMMITTEE LONG RANGE PLANNING

DATE January 29, 1985

BILL NO.

Cultural & Aesthetic  
Cap. Expend.  
Projects

TIME 10:50 a.m.

[illegible]

Janet Pallister

Secretary, Janet Pallister

Robert Thoft

Chairman , Robert Thoft

Motion: To approve all projects in the cultural and aesthetic capital  
expenditure category for recommended funding, except #94, #111, #117, and #133.

Exhibit #1

Dof I

1-29-85

MEMORANDUM

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June 1, 1984

TO: DIVISION ADMINISTRATORS  
for distribution to Superintendents and Warden

FROM: CURT CHISHOLM, Deputy Director  
Department of Institutions

SUBJECT: Supplemental instructions to the Long Range Building Program  
Instructional Package

As promised but, admittedly later than intended, the following guidelines are to be followed as supplemental instructions to the 86/87 Long Range Building Program submission.

I. Major Maintenance and Repairs

The Department's LRBP priorities for the 86/87 Biennium continue to emphasize appropriate and timely maintenance and repair to existing physical plant and equipment. For the purposes of this memo, major maintenance and repair is defined as a project or combination of projects required either to protect the state's investment in existing physical plant or to insure continued compliance with licensing and/or facility standards - both of which would require "extraordinary" expenditures from your base maintenance budgets. In effect, such projects would not normally be included as part of an ongoing preventive maintenance program. Examples of such projects would be as follows:

1. Roof Repair or Replacement.
2. Repair or replacement for deteriorating walkways that are critical to campus traffic, especially for patients and inmates.
3. Mechanical problems with plumbing, control devices, electrical service, sewage plants, etc.
4. Well maintenance.
5. Tower maintenance [for the most part we should be OK here since we have just completed a major maintenance effort on all existing water towers.]

## II. Campus/Facility Utilization Planning - Efficiency of Use

Another priority area would be any LRBP project that emanates from planning to achieve more efficient space utilization within a campus environment. Consideration here should be given to:

(1) Reevaluation of current use of facilities and office space with the goal of collapsing as much as possible (and within reason) to the least amount of heated or usable space possible. In other words, whatever projects would be required to allow you to vacate buildings in order to save maintenance costs, utility costs, etc. by relocating certain functional or administrative areas into already used or partially used buildings.

(2) Buildings which, by virtue of serious code or licensure deficiencies would be too costly to bring into compliance; or buildings that have no future utility to your institutional requirements - should be identified for demolition. Any suggested demolition should include the cost of reclaiming the building site as either a landscaped or paved area in order to enhance and maintain the beauty of the campus.

(3) Reevaluation of refrigeration, freezer, and cooling requirements; general storage requirements; and warehousing needs.

## III. Handicapped Access/Patient and Employee Safety/Patient Comfort Projects

As a third priority issue, consideration should be given to projects that would by definition insure our compliance with Federal and State Law and our own Department Policies relative to the aforementioned areas. Examples would be as follows:

1. Ramps, toilet modifications, etc.
2. Perimeter fencing projects.
3. Remodeling projects to improve living conditions in residential areas.

## IV. Energy Conservation Projects

As a fourth priority issue, consideration should be given to projects that would conserve energy. Examples of such projects would be

- (1) Insulation for buildings( especially patient residential areas) (2) retrofit projects on windows, steamlines, boilers, etc. (3) upgrading of heating, air circulation, and other similar control mechanisms.

## V. Campus Beautification Projects

As a fifth priority, consideration should be given to projects we have entertained biennially for the last 27 biennia but always seem to get shoved off the priority list because of other Department priorities.



Examples of projects here would be such things as paving, landscaping, street lighting, and other similar kinds of projects that would improve the aesthetics of our campuses for both patient, employee, and public considerations along with the additional benefits of improved safety, security, etc.

#### VI. New Construction/Major Renovations

New construction and major renovation is not a high priority during this upcoming biennium given the construction programs funded during the last two biennia. The cash building program is not expected to be sizeable enough to entertain many major construction projects, and the realities of a bonded program are remote in view of the indebtedness the state incurred during the last two biennia.

If, however, there are new construction requests that are consistent with your long range program goals that you feel have to be surfaced for the upcoming biennium, have at it. Bear in mind the priority they will be given unless extraordinary circumstances dictate otherwise.

I hope the above will be beneficial to you in evaluating your LRP Project priorities. If you have any concerns or questions on the issues contained in this memo, please do not hesitate to contact me directly or your respective division administrators.

Have rough drafts of your LRBP Projects available at the Superintendent's meeting in Columbia Falls. Time is being set aside to review these projects and to answer any questions you might have about them. At that meeting, we will negotiate a date when your LRBP Projects are due in this office. In addition, between now and the time that we meet, if you have any concerns about your ability to estimate the amount of money that will be required for your projects, please do not hesitate to contact A & E directly.

CC:sd

BUILDING PROGRAM REQUESTS  
BY AGENCY AND PROJECT  
1985 - 1987 BIENNium

Exhibit #2  
1-29-85  
DofH

Priority	AGENCY/PROJECT	FUNDS			Total
		Capital Projects Fund	Farmarked Revenue	Federal & Private Revenue	
DEPARTMENT OF INSTITUTIONS					
CENTRAL OFFICE					
CAPITOL CONSTRUCTION PROJECT PRIORITY LIST					
CATEGORY I					
PATIENT SAFETY, COMFORT AND LICENSURE PROJECTS					
1.	Forensic Renovation/Addition, Montana State Hospital, Warm Springs Campus	4,691,313	-0-	-0-	4,691,313
2.	Install Sewage Treatment Plant, Swan River Youth Forest Camp	444,100	-0-	-0-	444,100
3.	Expand Sanitary Sewer System, Montana State Prison	250,000	-0-	-0-	250,000
4.	Construct New Warehouse, Montana State Prison	856,140	-0-	-0-	856,140
5.	Install Fire Detection and Sprinkler System, Montana State Hospital	382,124	-0-	-0-	382,124
6.	Renovate Bathrooms, Showers and Seclusion Rooms, Receiving Hospital, Montana State Hospital, Warm Springs Campus	21,057	-0-	-0-	21,057
7.	Install Environmental Control and Air Handling Systems, Center for the Aged	699,600	-0-	-0-	699,600
8.	Modify Intake Building, Montana State Hospital, Warm Springs Campus	120,000	-0-	-0-	120,000

BUILDING PROGRAM REQUESTS  
BY AGENCY AND PROJECT  
1985 - 1987 BIENNium

Priority	AGENCY/PROJECT	FUNDS			Total
		Capital Projects Fund	earmarked Revenue	Federal & Private Revenue	
9.	Repair Boiler, Pine Hills School and Montana State Hospital, Galen Campus	26,100	-0-	-0-	26,100
10.	Repair and Replace Roofs, Boulder River School and Hospital and Mountain View School	125,340	-0-	-0-	125,340
11.	Construct Walk-In Freezer, Eastmont Human Services Center	20,000	-0-	-0-	20,000
12.	Renovate Kitchen, Montana State Hospital, Warm Springs Campus	360,251	-0-	-0-	360,251
13.	Expand Warehouse, Montana State Hospital, Warm Springs Campus	246,300	-0-	-0-	246,300
14.	Install Lawn Sprinkler System & Handrails, Center for the Aged	39,325	-0-	-0-	39,325
15.	Ventilation System for Cottonwood Cottage, Mountain View School	40,000	-0-	-0-	40,000
16.	Replace Floor Coverings, Pine Hills School and Center for the Aged	31,600	-0-	-0-	31,600
17.	Modify Control Room, Sundance Lodge, Pine Hills School	9,520	-0-	-0-	9,520
18.	Handicapped Access/Building Modification, Montana State Hospital	123,179	-0-	-0-	123,179
19.	Construct Ground Level Warehouse and Maintenance Workshop, Center for the Aged	420,345	-0-	-0-	420,345

BUILDING PROGRAM REQUESTS  
BY AGENCY AND PROJECT

1985 - 1987 BIENNIIUM

Priority	AGENCY/PROJECT	FUNDS			Total
		Capital Projects Fund	Earmarked Revenue	Federal & Private Revenue	
20.	General Maintenance and Repair, Montana State Hospital	105,806	-0-	-0-	105,806
21.	Rewire Maple Cottage, Mountain View School	35,850	-0-	-0-	35,850
22.	Rip Rap Prickley Pear Creek, Mountain View School	14,950	-0-	-0-	14,950
CATEGORY II RETROFIT/ENERGY CONSERVATION PROJECTS					
1.	Energy Retrofit - Original Wing, Center for the Aged	141,167	-0-	-0-	141,167
2.	Energy Retrofit - Eastmont Human Services Center	32,000	-0-	-0-	32,000
3.	Energy Retrofit - Receiving Hospital, Montana State Hospital, Warm Springs Campus	76,800	-0-	-0-	76,800
4.	Energy Retrofit - Administrative Annex, Montana State Hospital, Warm Springs Campus	89,370	-0-	-0-	89,370
5.	Energy Retrofit - Administration Building, Pine Hills School	42,390	-0-	-0-	42,390
6.	Insulate Heat Pipes, Montana State Hospital, Warm Springs and Galen Campuses	50,209	-0-	-0-	50,209

BUILDING PROGRAM REQUESTS  
BY AGENCY AND PROJECT  
1985 - 1987 BIENNium

Priority	AGENCY/PROJECT	FUNDS			
		Capital Projects Fund	Earmarked Revenue	Federal & Private Revenue	Total
7.	Retrofit Gym, Montana State Prison	7,200	-0-	-0-	7,200
CATEGORY III BUILDING DEMOLITION					
1.	Demolish Selected Buildings and Reclaim Land, Boulder River School and Hospital	143,400	-0-	-0-	143,400
2.	Demolish Selected Buildings and Reclaim Land, Montana State Hospital	399,733	-0-	-0-	399,733
3.	Demolish Selected Building and Reclaim Land, Montana Veterans Home	170,000	-0-	-0-	170,000
4.	Demolish Lewis & Clark Lodge, Pine Hills School	48,100	-0-	-0-	48,100
CATEGORY IV PAVING, STREETS REPAIR PROJECTS					
1.	Pave Entrance Road, Pine Hills School	27,500	-0-	-0-	27,500
2.	Finish Paving Original Campus Streets, Eastmont Human Services Center	23,347	-0-	-0-	23,347
3.	Street and Sidewalk Paving Projects, Montana State Hospital	318,075	-0-	-0-	318,075
4.	Street Pavement Project, Montana State Hospital	183,282	-0-	-0-	183,282

BUILDING PROGRAM REQUESTS  
BY AGENCY AND PROJECT  
1985 - 1987 BIENNium

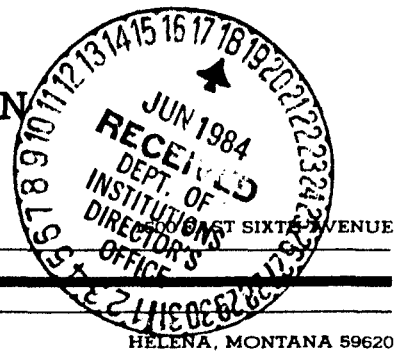
Priority	AGENCY/PROJECT	FUNDS			Total
		Capital Projects Fund	Earmarked Revenue	Federal & Private Revenue	
5. Street and Sidewalk Pavement of Unpaved Areas, Montana State Hospital, Warm Springs Campus		116,891	-0-	-0-	116,891
CENTRAL OFFICE PRIORITIES					
TOTAL		10,932,364	-0-	-0-	10,932,364
CATEGORY V - NON PRIORITIZED PROJECTS					
RECOMMENDED BY HB 909 REPORT					
New Construction and Remodeling, Boulder River School and Hospital		4,074,303	-0-	-0-	4,074,303
Enclose Breezeways, Eastmont Human Services Center		23,000	-0-	-0-	23,000
CATEGORY V					
TOTAL		4,097,303	-0-	-0-	4,097,303

DEPARTMENT OF ADMINISTRATION  
ARCHITECTURE & ENGINEERING DIVISION

TED SCHWINDEN, GOVERNOR

STATE OF MONTANA

(406) 444-3104



HELENA, MONTANA 59620

Exhibit 3  
1-29-85  
DOI

June 15, 1984

Curt Chisholm, Deputy Director  
Department of Institutions  
1539 Eleventh Avenue  
Helena, Montana 59620

RE: Sewage Disposal Study  
Swan River Youth Forest Camp  
Mont A/E 83-22-02

Dear Curt:

I have enclosed a copy of the final draft of the Sewage Disposal Study prepared for the Swan River Youth Forest Camp.

This final draft supercedes the preliminary copy that was forwarded for your review with my February 21, 1984, letter.

As a result of the review process, input from the Department of Health required that the design concepts be refined causing an increase in the estimated construction cost of each option.

We concur with the consultant's recommendation of Alternative 2. This alternative consists of a central sewage collection system with subsequent treatment in an aerated lagoon followed by disposal in percolation ponds. Although the estimated 1986 construction cost of this system (\$444,100) is slightly more than one of the other options, its lower operating and maintenance cost makes it the most economically feasible of three treatment methods.

Please call me if you have any questions.

Sincerely,

GEORGE T. NOLAN, Mechanical Engineer  
Design Bureau

ld

Enclosure

cc: Daniel D. Russell (with encl.)  
Melvin R. Mohler (with encl.)  
Thomas B. O'Connell (with encl.)

SEWAGE DISPOSAL STUDY

FOR

SWAN RIVER YOUTH CAMP

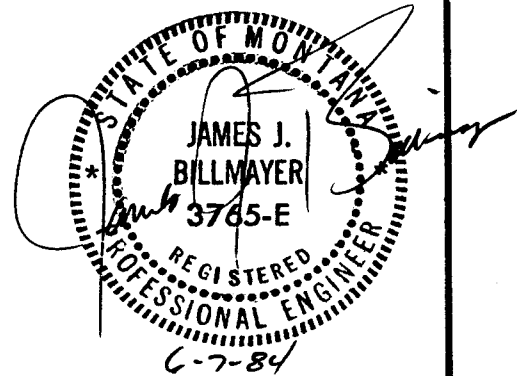
SWAN LAKE, MONTANA

A/E 83-22-01

SM.1.2

FINAL DRAFT

JUNE, 1984



**MARQUARDT, BILLMAYER**  
Consulting Engineers

2191 Third Avenue East ■ Kalispell, Montana 59901 ■ (406) 257-8708





**MARQUARDT, BILLMAYER**  
Consulting Engineers

2191 Third Avenue East ■ Kalispell, Montana 59901 ■ (406) 257-8708

by K. Marquardt, P.E.  
by Billmayer, P.E.

June 6, 1984

Montana Department of Administration  
Architecture and Engineering Div.  
1500 East Sixth Avenue  
Helena, Montana 59620

Attention: George Nolan

Re: Sewage Disposal Study - Swan River Youth Camp  
Swan Lake, Mont. A/E 83-22-01

Dear George:

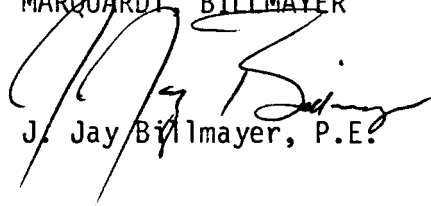
Transmitted herewith are twelve (12) copies of the  
Swan River Youth Forest Camp Sewage Disposal Study.

On the basis of our analysis, we recommend  
alternative 2, centralized collection of sewage with  
treatment in an aerated lagoon and  
percolation/infiltration ponds for disposal. This  
alternative is both the most reliable and economical of  
the three alternatives investigated.

Comments solicited and received from various state  
and local agencies involved have been incorporated into  
this final draft of the report.

This report was prepared with the cooperation and  
assistance of Mr. Mel Mohler and the Swan River Youth  
Forest Camp Staff. Their input and hospitality was  
greatly appreciated.

Respectfully Submitted,  
MARQUARDT, BILLMAYER



J. Jay Billmayer, P.E.

JJB/tj

## INTRODUCTION

Swan River Youth Camp is a State owned, minimum security detention facility operated by the Montana Department of Institutions. The facility is located in Section 18, Township 23 North, Range 17 West, Lake County, Montana, in the Swan River Valley. The facility currently houses approximately 50 internees and has a staff of 20 supervisors, clerical and support personnel.

Dormitory, gym, administration, kitchen and shop buildings comprise the facility. Each structure has an independent on-site septic tank-soil absorption system to accomplish sewage treatment and disposal.

Elements of the facility have experienced recurrent and prolonged difficulties with this method of sewage disposal. Problems ranged from system blockage due to lack of septic tank maintenance, to failure of the absorption system leach fields to dispose of the effluent. The former causes disruption of facility routine and the latter potentially contaminates state waters via surface flows into Goat Creek and the Swan River. In addition, camp residents are subjected to unreasonable health risks resulting from poor performance of the sewage treatment/disposal system.

Reported herein are preliminary designs and cost comparisons of three alternative techniques for on-site treatment and disposal of

sewage generated by the complex. In each case, a gravity sewer collection network routes sewage to a common sewage lift station for transportation by force main to a sewage treatment and disposal facility.

The treatment and disposal techniques employed in this study are:

- 1) Anaerobic digestion in an Imhoff tank, with filtration and pressure distribution into convention leach field,
- 2) Aerobic digestion in an aerated lagoon with disposal in percolation ponds,
- 3) Aerobic digestion in an aerated lagoon with land application of treated effluent by way of sprinkler irrigation.

### RECOMMENDATIONS AND CONCLUSIONS

The existing piecemeal sewage disposal system should be replaced with a gravity sewer collection system and a centralized treatment and disposal facility.

Alternative 2, treatment by aerated lagoon/disposal via infiltration ponds presents the lowest initial cost when considering plant investment and perpetuation cost series brought to present worth.

Reliability of the treatment and disposal system is expected to be quite high. This concept has been successfully implemented for a number of Montana Communities. This treatment and disposal combination best accommodates the climatological problems of the area.

Alternatives studied and respective present worth value of construction and perpetuation costs for 20 year system life and 10 percent interest are tabulated below.

	<u>Const. Cost - 1986</u>	<u>Total Present Worth Value</u>
Alternative 1	422,400.00	530,200.00
Alternative 2	444,100.00	522,000.00
Alternative 3	481,600.00	583,300.00

#### SEWAGE COLLECTION AND TREATMENT

##### Sewage Load

Sewage volume for the camp was determined by estimating the per capita sewage volume to be 100 gallons per person per day. The average daily volume for the camp is computed to be 21250 gallons per day as tabulated in Table 1.

TABLE 1  
SWAN RIVER YOUTH CAMP  
SEWAGE LOADS

	<u>Units</u>	<u>Load</u>	<u>Total</u>
Internees	100 People	100 GPCD	10,000
Staff	20 People	100 GPCD	2,000
Staff Families	50 People	100 GPCD	5,000

---

	Subtotal	=	17,000 GPD
25% Allow Infiltration & Surge		=	4,250 GPD
	Total Load	=	21,250 GPD

## Sewage Lift Station

Design criteria used to size components and develop cost estimates for the sewage lift station are as follows:

$$\text{Average Daily Sewage Flow} = 21250 \text{ GPD}$$

$$\begin{aligned} \text{Average Flow Rate} &= \frac{21250}{24(60)} = 14.8 \text{ GPM} \end{aligned}$$

$$\text{Peak Flow Rate} = 4.5 \times 14.8 = 66.4 \text{ GPM}$$

\* Peakage Factor 10 States Standards.

A duplex pump station will be provided utilizing end suction or submerged volute centrifugal pumps installed in a reinforced concrete wet well. Each pump must meet or exceed the peak hourly flow rate computed above. A second criteria, minimum force main velocity limited to 2.0 feet per second, dictates minimum pump discharge. Minimum required discharge is then 80 GPM when a 4 inch force main is utilized.

Wet well sizing is based upon limiting sewage residence time to less than 30 minutes at average daily flow while providing approximately 5 minutes pump run time for each operation cycle. A 72 inch diameter wet well with 450 gallons draw down volume meets this criteria. Pump run-time is 5.62 minutes. Maximum sewage residence

time is 30.4 minutes.

Pumps will be cycled alternately, thereby balancing run-time of each pump. Control logic should include automatic lag pump start, in the event the lead pump fail to start or maintain discharge capacity greater than the incoming sewage flow.

### Sewage Treatment and Disposal

Alternative 1 - Anaerobic digestion in an Imhoff tank with filtration and pressure distribution of effluent into conventional leach field.

The Imhoff tank provides removal of settleable solids, scum and grease, and anaerobic digestion of those solids simultaneously. The tank is basically a two story vessel in which sedimentation is accomplished in the upper compartment and digestion progressed in the lower compartment. Settling solids pass through trap slots into the lower unit. Scum accumulates in the upper unit and in surface vent sections. Digested sludge and grit settle in the conical bottom of the lower section for storage and removal by pumping.

Effluent from the Imhoff tank is further treated and clarified by filtration in an intermittent sand filter. Within the intermittent sand filter, pretreated wastewater is applied over a 30 inch deep bed of sand and the filtrate is collected by under drains. The sand remains aerobic and serves as a biological filter removing suspended

solids (SS) and dissolved organics and thus biological oxygen demand (BOD). A reduction of the concentration of these parameters results in significant increase in the reliability of sewage disposal systems utilizing soil absorption as the ultimate means of effluent disposal. Secondary treatment is occurring at an accessible point in the system rather than in the soil mantle which once clogged with organics cannot easily be renovated and must be abandoned.

Two 4,000 square foot filters are to be constructed. Filter service will be alternated. One filter will be in operation for 3 to 5 months while the other is rested. Duration of filter runs depend on grain size, hydraulic loading, influent organic strength and maintenance techniques. Filters are loaded at 5 gal/day/sq. ft. Each filter is operated until ponding occurs. That filter is then taken out of service, raked to a depth of 2 to 4 inches, and rested while the second unit is in operation. After the second loading period the top 4 inches of sand from the filter will likely require replacement with clean sand. Recurrent sand replacement will be required annually.

The filters are lined with 36 mil reinforced hypalon membrane to prevent leakage of effluent or intrusion of groundwater. A cover system is to be fabricated from 22 gauge galvanized corrugated steel decking sheets. The cover is incorporated in the design to reduce heat loss and minimize ice problems during winter operation. The decking sheets are supported on a post and T-rail system which also acts as support for the distribution piping grid.



Septic tank effluent is collected in a dosing chamber and uniformly distributed over the surface of the filter through an applicator grid.

Discharge from the filters will flow into a dosing pump station for disposal on site by a pressurized distribution piping grid into absorption trenches.

The effluent pump station contains two pumps each discharging into a separate distribution grid. Control circuits will be programmed to sequentially cycle each pump thus rotating the absorption bed receiving effluent.

The actual absorption areas required are sized on the basis of percolation tests to be conducted within the disposal areas and constant head permeameter tests conducted on soil samples taken at intervals to 10 feet below the surface from the test hole excavations. Loading rates were selected for purpose of this study are 0.8 gallons/sq. ft./day. This rate is based on published rates for similar soils. Rate should be checked against the permeability of the most restrictive soil horizon to insure saturation of soil structure will not occur.

Alternative 2 - Aerobic digestion in an aerated lagoon with disposal in percolation ponds.

Effluent from the force main is discharged directly into two (2)

lined primary cells. These cells also contain aeration diffusers for aerobic digestion of the bio-wastes. Aeration cells are sized to provide a total of twenty (20) days detention time. Pond depth is ten (10) feet and will contain 425,000 gallons of raw sewage with 8 feet of working depth and 3 feet freeboard.

Mechanical aeration equipment in the form of electrical motor driven blowers and distribution piping is contained in an adjacent 384 square foot wood frame structure. Diffusers are to helixor coarse bubble type with location and number as recommended by manufacturer.

Effluent is released from the primary cell into two (2) lined sedimentation basins. These cells have forty (40) days detention time. Five (5) days are required as a minimum clarification period and thirty-five (35) days emergency storage capacity serves as a holding pond for untreated effluent in the event of a power outage or operational problems with the downstream percolation ponds.

The effluent from the sedimentation basin is conveyed to three (3) infiltration/percolation ponds via a 4 inch inverted siphon. Each pond has a total depth of 10 feet with normal filling depth not to exceed 5 feet. The interior and exterior slopes of the pond are constructed at 3 to 1. All slope surfaces are to be seeded with Reed's Canary Grass for additional transportation of both effluent and nutrients. The application rate was set at 0.88 gallons per square foot per day. Pond bottom area was then computed to be 12,000 square feet for each pond. Total area is 36,000 square feet.

Although an infiltration rate as high as 1 inch per hour is anticipated, the ponds are designed to be operated at 1.42 inches per day. This rate converts to 43.2 feet per year. This moderate application rate is utilized to minimize soil clogging and potential inundation of the grasses. Anticipated operation will provide an eight day loading period with a sixteen (16) day draw down and drying period.

The total storage capacity for the infiltration/percolation ponds at eight feet depth is 65 days. Total storage capacity of the entire pond system is 195 days.

Alternative 3 - Aerobic digestion in an aerated lagoon with land application of treated effluent by way of sprinkler irrigation.

As in Alternative 2, effluent from the lift station is discharged directly into a lined aerated cell. This aerated cell is sized to provide minimum of twenty (20) days detention time for aerobic treatment of the raw sewage and additional 100 days storage of effluent.

Flow proceeds to a second cell that has a total capacity of sixty (60) days. Five (5) days storage capacity are required for sedimentation and clarification. The remaining fifty-five (55) days holding capacity also serves as off season and emergency storage. Total storage capacity for this system is then 180 days. This storage volume is necessary since treated effluent cannot be sprayed during

month of heavy snow cover or air temperatures below freezing.

An adjacent 384 S.F. wood frame structure houses aeration blowers and motors as well as irrigation pumps for the spray application system.

Effluent is applied over six (6) acres by way of a low head, effluent distribution system utilizing spray nozzles mounted at approximately 5 feet above the ground surface on riser pipes. The system is constructed with three application zones each approximately 2 acres in size. Effluent application rate is a maximum of 4 inches per week. The area will be left with natural vegetation which is a combination of grasses deciduous trees and conifers. No other use for the area is anticipated.

Application intensity was set at 0.38 inches per hour. Approximately 1/3 of the published infiltration capacity for this type of site. Subsurface drainage capacity should be analyzed by way of constant head permeometer tests on soil samples.

Rainfall, evaporation, and plant uptake are to be included in the design assessment of the impact of effluent application to the site. Excess water, which is applied to the site, is not consumed or evaporated goes to soil drainage, therefore, the drainage capacity of the soil system must be analyzed.

Duration of the effluent dose to the spray irrigation field can

be varied by way of adjustable timer settings. Three inches of effluent would be applied over the entire area in eight (8) hours. Pumping flow rates from the holding ponds should be approximately 350 gallons per minute.

### PRESENT WORTH ANALYSIS

The actual cost of ownership of the sewage disposal system is the sum of the initial plant investment plus the recurrent cost of operation and maintenance. An equitable method of cost comparison is the "Present Worth Analysis" method. Plant investment is taken at actual cost in the year construction is to be initiated and operation and maintenance (O & M) costs are collectively brought to that point in time utilizing the "Uniform Series Present Worth" method. Project life and interest rate are twenty (20) years and 10.0 percent respectively. Table 2 projects annual O & M costs for each alternative studied. Table 3 presents the present worth analysis. This analysis bears out the conclusion Alternative 2 is the most economical method of sewage disposal. Even though the Alternative 2 initial cost (1986 construction cost) is somewhat higher than Alternative 1, when O & M costs are considered the total system perpetuation cost is less.

TABLE 2SWAN RIVER YOUTH CAMPANNUAL OPERATION AND MAINTENANCECOSTS FOR SEWAGE DISPOSAL SYSTEM

	Alternative	Alternative	Alternative
	<u>1</u>	<u>2</u>	<u>3</u>
Lift Station			
Power	350.00	350.00	350.00
Labor	2750.00	2750.00	2750.00
Replacement	650.00	650.00	650.00
Gravity Sewers			
Cleaning & Flushing	2150.00	2150.00	2150.00
Treatment & Disposal			
Sludge Pumping	750.00	-	-
Power	420.00	250.00	800.00
Labor	4800.00	2750.00	3500.00
Replacement Equip.	800.00	250.00	1050.00
Chlorination	-	-	700.00
Annual Cost	12,670.00	9,150.00	11,950.00

TABLE 3

SWAN RIVER YOUTH CAMP  
SEWAGE DISPOSAL SYSTEM  
PRESENT WORTH COMPARISON

	<u>Alternative 1</u>	<u>Alternative 2</u>	<u>Alternative 3</u>
O & M Costs*	107,800.00	77,900.00	101,700.00
Present Worth			
1986 Plant**	422,400.00	444,100.00	481,600.00
Investment			
<hr/>			
Total 1986			
Present Worth	530,200.00	522,000.00	583,300.00

- Present Worth O & M =  
O & M (From Table 2) x Uniform series present worth factor 20  
year life, 10 percent interest.
- Estimated system cost x 6% inflation per year x 2 years.

SWAN RIVER YOUTH CAMPSEWAGE DISPOSALAlternative 1 - Imhoff, Filtration and Soil Absorption

	<u>Units</u>	<u>Cost</u>	<u>Total</u>
<b>Collection</b>			
6" PVC Sewer	2150	9.50	20400.00
4" PVC Sewer	1960	7.00	13700.00
4" x 6" Wye Service	15	120.00	1800.00
Manholes	8	1500.00	12000.00
Trailer Service	15	180.00	2700.00
Testing	L.S.	-	1500.00
<b>Lift Station</b>			
Pumps	2	5500.00	11000.00
Piping	L.S.	-	5000.00
Electrical	L.S.	-	4000.00
Structure	10 V.F.	450.00	4500.00
Auxiliary Power	L.S.	-	12000.00
Force Main	1200 L.F.	6.00	7200.00
Valves & Fittings	5	300.00	1500.00
Flushing & Testing	L.S.	-	800.00
<b>Treatment System</b>			
Imhoff Tank	30,000 Gal.	1.10	33000.00
Pump House	L.S.	-	11000.00
Filter Dosing Pumps	2	2500.00	5000.00
Sand Filters	8000 S.F.	12.00	96000.00
Piping	L.S.	-	6000.00
Auxiliary Power	L.S.	-	12000.00
Electrical	L.S.	-	2000.00
Start up & Testing	L.S.	-	1500.00
<b>Disposal</b>			
Dosing Pumps	2	4000.00	8000.00
Piping	400	5.50	2200.00
Soil Absorption System	26,000 S.F.	2.00	52000.00
		Subtotal	326,800.00
		Engineering & Contingency @ 15 %	49,000.00
		1984 Total	375,800.00
		1986 Total	375,800.00
			x 1.124*
			= 422,400.00

Cost/Gallon =  $\frac{422,400}{21250} = 19.88$

\* Inflation Factor -  
6% Inflation x 2 years



SWAN RIVER YOUTH CAMPSEWAGE DISPOSALAlternative 2 - Aerated Lagoon, Perc Ponds

	<u>Units</u>	<u>Cost</u>	<u>Total</u>
Collection (From Alternative 1)			52100.00
Lift Station			
Pumps	2	5500.00	11000.00
Piping	L.S.	-	5000.00
Electrical	L.S.	-	4000.00
Structure	10 V.F.	450.00	4500.00
Auxiliary Power	L.S.	-	12000.00
Force Main	2600	8.00	20800.00
Valves and Fittings	8	300.00	2400.00
Flushing and testing	L.S.	-	1200.00

Treatment and Disposal

Pond Excavation	40,000 C.Y.	1.50	60000.00
Embankment	30,000 C.Y.	2.00	60000.00
Membrane Liner	42,000 S.F.	.70	29400.00
Cell Piping	1,200 L.F.	10.00	12000.00
Seeding & Restoration	L.S.	-	2000.00
Fencing	1,800 L.F.	12.00	21600.00
Aeration Facility	384 S.F.	45.00	17300.00
Blowers	2	7000.00	14000.00
Piping	850 L.F.	5.00	4300.00
Electrical	L.S.	-	7000.00
Testing & Start up	L.S.	-	3000.00

Subtotal 243,600.00

Engineering & Contingency @ 15 % 51,500.00

1984 Total 395,100.00

1986 Total 395,100.00  
x 1.124\*

= 444,100.00

Cost/Gallon =  $\frac{444,100}{21250}$  = 20.90

- Inflation Factor - 6% Inflation x 2 years

SWAN RIVER YOUTH CAMPSEWAGE DISPOSALAlternative 3 - Aerated Lagoon, Spray Irrigation

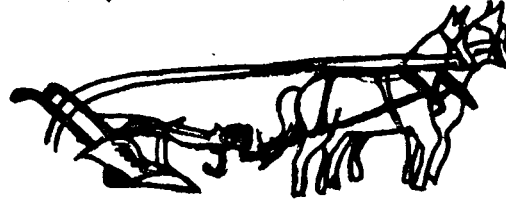
	<u>Units</u>	<u>Cost</u>	<u>Total</u>
Collection			
(From Alternative 1)			52100.00
Lift Station			
(From Alternative 2)			60900.00
Treatment			
Pond Excavation	20,000 C.Y.	2.00	40000.00
Embankment	15,000 C.Y.	2.00	30000.00
Membrane Liner	64,400 S.F.	.70	45100.00
Cell Piping	300 L.F.	10.00	3000.00
Seeding & Restoration	L.S.	-	2000.00
Fencing	2,400 L.F.	12.00	28800.00
Aeration Facility	384 S.F.	45.00	17300.00
Blowers	2	7000.00	14000.00
Piping	1,000 L.F.	5.00	5000.00
Electrical	L.S.	-	10000.00
Chlorination	L.S.	-	8000.00
Disposal			
Irrigation Pumps	2	4000.00	8000.00
Distribution Piping	5,000 L.F.	6.00	30000.00
Risers and Heads	105	70.00	7400.00
Controls and Valving	L.S.	-	3500.00
Start up and Testing	L.S.	-	2500.00
Electrical	L.S.	-	5000.00
		Subtotal	372,600.00
		Engineering & Contingency @ 15 %	55,900.00
		1984 Total	428,500.00
		1986 Total	428,500.00
			x 1.124*
			-481,600.00

Cost/Gallon =  $\frac{481600}{21250} = 22.66$

\* Inflation Factor -  
6% Inflation x 2 years

# Huntley Project Museum of Irrigated Agriculture

Exhibit #4  
1-29-85



Ballantine, Mont.  
Jan.26, 1985

Re: Arts Council Advisory Committee..

To: The members of Montana's Long Range Planning Committee.

We here-with wish to supply you with some brake out of the Recommendations of The Montana Arts Council Advisory Committee, relative to the allocation of Culture and Aesthetic funds.

There were 80 applications submitted.

26 are to receive over \$20,000.

17 are to receive \$10,000. and under.

22 are to receive nothing.

Billings is to receive	\$225,142.00
Bozeman is to receive	221,641.00
Helena is to receive	142,230.00
Missoula is to receive	245,825.00
	<hr/>
	\$834,838.00

These four are to receive over two thirds of the total to be allocated of \$1,248,395.00 These are all University towns which get a lot of other TAX DOLLARS.

While these rural towns applied and are to receive nothing, Big Fork, Chinook, Kalispell, Lavina, Ballantine, Lewistown, Livingston, Virginia City, Norris and one in Worden.

We of The Huntley Project Museum of Irrigated Agriculture, ask that your committee cut those larger ones and fund some of those who

were to be left out. We are very much in need of \$5,000+ a year for the next two years for our Museum. So that we can employ some handicaped and can sponsor some youths under Youth Manpower.

Sincerely, *Chas. A. Banderob*  
Chas.A.Banderob. coordinator HPMIA.

## VISITORS' REGISTER

## LONG-RANGE PLANNING SUBCOMMITTEE

BILL NO. \_\_\_\_\_

DATE JANUARY 29, 1985

SPONSOR \_\_\_\_\_

NAME (please print)	RESIDENCE	SUPPORT	OPPOSE
PAUL HAUCK	HELENA	✓	
Tom O'Connell	"	✓	
CURT CHISHAM	EDISTATION	✓	
Dan Russee	Institutions	✓	
Bill Penlt	Arts Council	✓	
Rep. James Moore	Cardon, Mt.	✓	
Carolyn Ennis	Billings CAPAC	✓	
Carleen Lammie	Helena - Mt. Art Council		
Lucy Lynn Kinow	Mt. Feil Teachers		
Kimberly Kradoffe	Attorney General	✓	
Brenda Selige	Mont. Art Advocacy		

IF YOU CARE TO WRITE COMMENTS, ASK SECRETARY FOR WITNESS STATEMENT FORM.

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.