Resolution approving a County sponsored volunteer project in Yosemite West to build a new booster pump shed. Special Districts personnel would supervise volunteer construction of the engineered structure. The Yosemite West Advisory Committee has recommended funding the booster pump shed construction costs of $6,000 from the Utility Capital Fund.

This structure is needed to protect the water system booster pump tank from freezing in the winter months. The tank is currently exposed to the elements and wrapped in insulation. Water supply to the subdivision has been interrupted several times as a result of freezing.

Utilization of an estimated 216 volunteer labor hours will substantially reduce the cost of construction. Most of the costs are for construction materials with some additional cost for Public Works labor and oversight.

BACKGROUND AND HISTORY OF BOARD ACTIONS:

There is a current balance of $91,419.72 in the Utility Capital Fund.

LIST ALTERNATIVES AND CONSEQUENCES OF NEGATIVE ACTION:

1. No action. Structure would be delayed or not built.
2. Approve funding from another source.
3. Approve construction without use of volunteer labor at an increased cost to Yosemite West residents.

COSTS:

A. Budgeted current FY
   $0
B. Total anticipated costs
   $6,000
C. Required additional funding
   $0
D. Internal transfers (Utility Capital Fund)
   $6,000

SOURCE:

(x) 4/5th Vote Required
A. Unanticipated revenues
   $
B. Reserve for contingencies
C. Source description:
   Balance in Reserve Contingencies, if approved:

SPECIAL INSTRUCTIONS:

List the attachments and number the pages consecutively:

1. Budget Action Form
2. Design drawings
3. Materials list (from Ken Wall contractor and Y.W. resident)

CLERK’S USE ONLY

Res. No.: 95-120
Ord. No.
Vote - Ayes: 5
Noes: 
Absent: 
(x) Approved 
() Denied 
() No Action Necessary 

The foregoing instrument is a correct copy of the original on file in this office.

Date: 

ATTEST:

MARGIE WILLIAMS, Clerk of the Board
County of Mariposa, State of California

By: 

Deputy

ADMINISTRATIVE OFFICER’S RECOMMENDATION

This item on agenda as: 

Recommended
Not Recommended
For Policy Determination
Submitted with Comment
Returned for Further Action

Comment: 

A.O. Initials: 

Action Form Revised 5/92
COUNTY OF MARIPOSA

BUDGET ACTION FORM

DEPT/DIV: Public Works  CONTACT: Michael D. Edwards

DATE: April 7, 1995  PHONE: 966-5356

ACTION REQUESTED: (Check All That Apply)

(x) Budget appropriation by Board of Supervisors (4/5ths Vote Required): Amending the total amount available in the County Budget, or in any one fund of the budget, or appropriating Reserve for Contingencies;

( ) Transfer by Board of Supervisors (3/5ths Vote Required): Moving existing appropriation from one budget to another, or between categories within a budget unit;

( ) Transfer by Administrator: Moving existing appropriations within a single budget category between line items (i.e. services and supplies, etc.);

( ) Transfer by Auditor: Moving salaries between line items to accommodate variances internal to salaries; OR transfers within the County budget under $50.00 to accommodate minor variations from the budget.

<table>
<thead>
<tr>
<th>FUND/DEPT/ACCT NO.</th>
<th>LINE ITEM DESCRIPTION</th>
<th>AMOUNT (FROM)/TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>371-1400-825-0787</td>
<td>Transfer Out</td>
<td>$6,000.00</td>
</tr>
<tr>
<td>071-0901-309-1600</td>
<td>Transfer In</td>
<td>$6,000.00</td>
</tr>
<tr>
<td>071-0901-309-1600</td>
<td>Transfer In</td>
<td>$6,000.00</td>
</tr>
<tr>
<td>071-0901-871-0680</td>
<td>Booster Pump Shed</td>
<td>$6,000.00</td>
</tr>
</tbody>
</table>

Justification: See attached Board item.

Department Head Signature: ___________________________  Date: ___________________________

Approved By: Res. No. 95-170  Clerk: ___________________________  Date: 4/25/95

Administrator: ___________________________  Date: ___________________________

Auditor: ___________________________  Date: 4-8-95

AUDITOR'S USE ONLY:

Description: ___________________________  Transfer No.: ___________________________

B.R. No.: ___________________________

Budget Action Form Revised 5/92
SNOW LOAD REDUCTION

\[
S = \frac{120}{40} - \frac{1}{2} = 2.5 \text{ PSF/}\text{pitch}
\]

\[
\theta_{pitch} = \tan^{-1}\left(\frac{7}{12}\right) = 30.3^\circ
\]

\[
30.3 - 20 = 10.3^\circ
\]

Reduction = \((10.3) \times 2.5 = \text{25.75 PSF} \leq \text{26 PSF}
\]

\[
S_c = 120 - 26 = 94 \text{ PSF}
\]

SECTION

TRY SPACING = 2\' 0\'

TriB. AREA = 2\' \times 16\' = 32 \text{ sq}

TriB. LOAD = 32 (94) = 3008 \text{ \# (V)}

\[
\left(\frac{12}{13.9}\right) = 2.596 \Rightarrow T \text{ (CHOSEN)}
\]

Dock. FIr. #2 = Fr. - 8.25 PSf \text{ (TEN P. 2-46)}

\[
A(\text{PSF}) = \frac{2.596}{3.5^\circ} \sqrt{2\times4 \text{ o.k.}}
\]

\[
\frac{2596}{825}
\]

\[
\text{REGISTERED PROFESSIONAL ENGINEER}
\]

\[
\text{STATE OF CALIFORNIA}
\]

\[
\text{EXPIRES JUNE 30, 1991}
\]

\[
\text{DAVID L. TUCKER}
\]

\[
\text{No. 18504}
\]
**BARTLETT**

\[ l = 7 \text{ ft} = 7.75 \text{ ft} \]

\[ W = 7^2 \left( \frac{12^2}{2} \right) = 188 \text{ lb} \]

\[ S_{bist.} = \frac{188}{12} \left( \frac{7.75}{2} \right)^2 = 12.5 \text{ in}^3 \]

\[ 1350 \]

\[ B = 928.5 \text{ in}^3 \]

\[ \Delta = \frac{15 \cdot 928.5}{90} \]

\[ 17.3 \text{ in}^2 \]

\[ 9 \text{ in}^2 \]

\[ \Delta = 12.1 \text{ in}^2 \]

\[ F = 2 \times 8 = 2' \text{ o.c.} \]

\[ \Delta = 10.33 \text{ in}^2 \]

\[ 12 \times 8 = 2' \text{ o.c.} \]

\[ \Delta = 1.33 \text{ in}^2 \]

\[ S_{bist.} = \frac{15 \cdot 125 \cdot (7.75)^2}{350} = 8.34 \text{ in}^3 \]

\[ B = 4.84 \text{ in}^3 \]

\[ \Delta = 8.07 \text{ in}^2 \]

\[ \Delta = \frac{7.75 \cdot 12}{240} = 0.12 \]

\[ I_{M = 5} = \frac{5 \cdot 125 \cdot (7.75)^4 \cdot (128)}{384 \cdot (15 \times 10^6)} = 17.3 \text{ in}^4 \]

\[ 0.12 \text{ in}^2 \]

**12** total = 9 TRUSSS
Walls

Roof load = 94 psi

Wall = 10 psi

2x4 @ 1' o.c.

2x4

F_v = 900 psi

F_{w1} = 335 psi

\[ P = 94 \times 13 + 10 \times 2 = 1302 \text{ psi} \]

\[ \frac{F_v}{F_{w1}} = \frac{900}{335} = \frac{1302}{5 \times 1302} = \frac{240}{5.125} < F_{w1} = 335 \text{ psi} \]

O.K.
MEMORANDUM

To: Mike Edwards, Director

From: Clifton W. Price, Facilities Manager

Date: April 7, 1995

Subject: Ken Wall's Material Estimates for Yosemite West Water Tank Shed

Attached are Ken Wall’s estimates for volunteer construction of the water tank shed in Yosemite West. All material costs were derived by informal competitive bids from at least three vendors. The total costs are $4,978.65. We are adding approximately $1,000 to the overall cost of the job to account for County staff involvement in the project. The total estimated cost would then be approximately $6,000. I believe this approach to be the most cost effective way to complete this project.

Ken Wall procured this information on his own time for the benefit of the residents in the Yosemite West special district.
Dear Cliff,

I am enclosing a report of our estimate for the water tank shed at the lower well site. At this time, I have only acquired the estimates from individual vendors. I have not yet done comparison estimating with other vendors. I will wait to do that until May.

The following cost breakdown is for materials only:

1. Concrete - Outback Co. from Oakhurst
   4 1/2 cu yds @ $98.50 ea.  $443.25
   6 1/2 cu yds, load under 8 cu yds @ $15 per yd  $22.50
   $465.75
   Tax 40.75
   $506.50

   Pump setup fee 145.00
   $651.50

$651.50

K. Wall
2. Lumber - Hardware Holt lumber, CA
   includes the following: Fresno, CA
   a) form lumber
   b) framing
   c) R-13 wall insulation
   d) R-30 ceiling - roof insulation
   e) exterior plywood siding
   f) 1/8" interior wall plywood
   g) 5/8" ply roof sheathing
   h) nails, anchors, felt, vents, etc
   
   $2,361.07

3. Roof covering Borga Co, Fowler Cal
   zinc coated metal
   enough to cover both
   the existing and new addition
   
   $651.08

4. Transport roofing materials from Fowler to Yosemite West
   
   $125.00

T. Wall
water tank shed

5. Exterior entry door 3' x 6'8" frame & trim, fresno, cal.
   metal clad, deadbolt, keyed passage lock,
   $190.00

6. Paint or stain allowance
   $350.00

7. Portable elec generator allowance
   rental fee
   $150.00

8. Contingency allowance
   $500.00

K. Wall
**Summary**

1. Concrete: $651.50
2. Lumber: $3,361.07
3. Roof covering: $651.08
4. Transport: $125.00
5. Entry door: $190.00
6. Paint allowance: $550.00
7. Generator: $150.00
8. Contingency allow: $500.00

Total: $4,978.65

I did not consider in this estimate any materials or construction methods to allow for the removal of the water tank.

Approximate total of volunteer labor in hours:

216 hours

Sincerely,

Ken Wall