A Report On The:

GOVERNOR'S QUALITY ENVIRONMENT PROGRAM

Submitted By:

Frank V. Ongaro

Pursuant to Executive Order #83-18

January 31, 1984

To the Governor and Legislature
of the State of Minnesota

It is my pleasure to submit to the Governor of the State of Minnesota, the Honorable Rudy G. Perpich, and the Seventy-third Legislature of the State of Minnesota, this Report of the Governor's Quality Environment Program.

This report is prepared in compliance with Executive Order No. 83-38. This report is made available to the Legislative Reference Library. Copies of this report are available on request, to interested members of the State Legislature, State Departments, Federal County and Local agencies, schools, libraries and the general public.

Respectfully submitted,

Frank V. Ongaro

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Executive Director
Governor's Quality Environment Program

effectiveness, and a motivated membership, the Governor's Quality Environment Project can make great strides towards improving the ecological, aesthetic, and economic environment of Minnesota.

RECYCLING

Recycling is destined to play an ever-increasing role in improving and maintaining the quality of our environment and the health of our state's economy. Effective, efficient management of our natural resources is essential in an increasingly competitive world marketplace.

Each year we discard millions of dollars worth of valuable materials into landfills -- millions that could bring jobs and economic growth to Minnesota. We discard resources that could provide raw materials, energy, and energy savings to new and existing industries. In Minnesota, we spend over $200 million dollars annually to dump these resources into landfills. The cost of solid waste disposal is second only to education in many Minnesota communities. Our present landfill system constitutes a vast drain on our economy, as well as an extreme pressure upon our environment.

Problems with siting new landfills, and managing problems associated with existing new landfills are becoming more and more evident. The Non-productive costs associated with environmental clean-up, water supply contamination, and other pollution control for safe waste disposal are skyrocketing, as we discover that our past methods of waste disposal pose severe environmental threats today.

We have the potential to transform what we today treat as liabilities into the assets of tomorrow. Materials and energy recovery are likely to become the second largest economic sector in the United States (after agriculture) by the year 2000, according to Dun and Bradstreet. Two percent of our

nation's energy needs, equal to two-thirds of the energy produced by nuclear power in the U.S., is contained in the materials we currently discard into landfills, according to the U.S. Office of Technology Assessment. Recycling results in the energy savings of 95% in the production of aluminum, 75% in the production of steel, and up to 60% in the production of paper. By translating non-productive costs of our present solid waste disposal methods into productive use of secondary materials and energy recovery, we can cut environmental costs, costs to government, and costs to individuals, creating jobs, and new growth in the economy.

The United States presently has one of the lowest rates of recycling of the industrial nations. Japan presently recycles 78% of its paper and paper products, taking advantage of energy savings, and lower pollution costs. In comparison, the U.S. recycles 29% of its paper. In many cases we actually ship our recycled materials to Japan, and western European nations, for them to process.

A comprehensive and efficient system of recycling, energy recovery, and reuse will require public sector efforts in education, removal of institutional barriers, and significantly, the implementation of appropriate economic incentives. It will require private sector capital investment and management. It will require innovations in both the public and private sectors. Recycling is especially important in its potential for rehabilitation of handicapped and other disadvantaged workers, chemically dependent, and structurally unemployed. It can provide opportunities for jobs for unskilled, and unemployed workers, and along with the marginal materials which we now pay tax dollars to dump counter-productivity , we

can improve our state's productivity, and generate new revenues and further employment in our economy.

GOODWILL INDUSTRIES/SALVATION ARMY -- A SPECIAL ROLE IN RECYCLING

As illustrated by the following projects, agencies such as Goodwill Industries and Salvation Army play an important role in recycling materials -- beyond traditional newspapers, cans and bottles.

These agencies recycle household items not only for repair and resale, but also for industrial use. Up to 15% of the materials we presently dump into landfills can be utilized by these agencies which maintain a unique niche in recycling. For example these agencies can recycle most textiles; plastics, metals, paper, cardboard, and even computers. Goodwill and Salvation Army are important to our economy in that they combine materials of marginal value with labor of marginal capabilities -- commodities which would otherwise cost taxpayers to landfill, or to support on the tax roles. These agencies keep materials out of landfills, and train and employ labor with marginal capacities -- mentally and physically handicapped, chemically dependent, or otherwise structurally unemployed. Through the work of Goodwill, Salvation Army, and others, people who might likely become a burden, become a productive addition to our state's economy.

Therefore, from the standpoint of our state's economy, encouraging these operations and their further expansion and profitability, is a step towards improving our environment, cutting government costs, providing new revenues to our economy with resultant multiplier effects, and productively solving social and environmental problems.

The Quality Environment Project has developed a role in helping to increase the awareness of the tremendous value of these agencies to our society.

Through public education, and awareness, and by identifying and providing the catalyst for special projects, QEP has worked to encourage the expansion of their efforts through increased expansion into new areas and further profitability.

COMPUTER RECYCLING -- CONTROL DATA AND GOODWILL INDUSTRIES

Control Data has recently initiated an investment recovery operation for its old computers. This operation is proving to be highly successful and profitable, as a complete computer system may include as much as $5,000 in precious metals. Control Data is also providing important public benefits by employing structurally unemployed through retraining and rehabilitation in its computer recycling operations. Many of the materials which are recycled would be considered hazardous wastes if landfilled.

To increase the effectiveness of this recycling, QEP initiated a project where Goodwill Industries serves as a collection agency for computers, circuit boards, and other high-tech recyclables. Goodwill, and other organizations have the mechanisms to reach out into the community, to smaller industries, professional services, and other organizations, to collect materials through available tax deductions. This program keeps hazardous wastes out of landfills, employs handicapped at Goodwill, and structurally unemployed through the recovery operations, adds revenues to the metropolitan economy, and provides a tax deducation for the company that donates its materials.

This program can be encouraged and promoted through the use of various business publications, and can be expanded more thoroughly into recycling of circuit boards from televisions, and other household items.

CURBSIDE HOUSEHOLD RECYCLING -- SALVATION ARMY/CITY OF MINNEAPOLIS

Through this project, initiated by QEP, the City of Minneapolis has contracted out with Salvation Army to pick up at curbside that portion of the waste stream which it can utilize (up to 15% of what we presently dump into landfills). This pilot project represents a significant step in public services, with the concept of transferring costs of counter-productive landfill fees to productive alternatives of collection for recycling and reuse.

This program is operated by the Salvation Army, in the Camden neighborhood of Minneapolis, four times yearly, in a curbside pick-up program. The City of Minneapolis then pays Salvation Army a portion of the costs it would incur in landfilling those materials. Through the excellent cooperation of the Camden News, and other media coverage, the program has helped to provide public education and awareness of the importance of recycling -- not only cans and bottles, but other materials as well. It is a first step in encouraging government cooperation, and elimination of barriers to promote the effectiveness of agencies such as Goodwill, and Salvation Army.

RECYCLING -- JOINT COLLECTION CENTERS

A major drawback to encouraging recycling is convenience and transportation. One way to accomplish these goals is by providing manned drop-off and redemption centers. Several of these are already in operation by MSD Recycle, U-Can, and others. Redemption centers serve to provide incentives for individuals and businesses to recycle, as well as providing a source of income to individuals, and volunteer organizations.

Expanding the numbers, and locations of such centers would lower transportation costs, and provide convenience. QEP has suggested a joint partnership between recycling agencies, specifically on a pilot basis with Goodwill Industries, MSD Recycle, and Champion Paper. By joining together, these agencies can lower their overhead costs, allowing them to expand their services at an accelerated rate, and to provide added convenience and lowered transportation costs to recyclers. This idea has met with enthusiasm, by the three agencies, and work is underway to transform this idea into a pilot project. Upon its success, other agencies, recyclers, and even local governments may wish to enter the parternships to provide these excellent services in their communities. The centers would collect a wide range of recyclables from metals, glass, paper, corrugated, household recyclables, office paper, scrap metals, etc. and could prove to be an effective boon to small businesses and other commercial recyclers as well, making use of the "one-stop-shopping" concept.

Resultant effects of this program's implementation will likely be:

* Local industries will benefit by avoiding landfill changes, and from receiving revenues from recycled materials.

  Goodwill and other recyclers will benefit by increasing their volumes of recycled materials, and their efficiency in processing, as well as reduced overhead.

  Small entrepreneurs would be encouraged to enter the recycling business -- perhaps on a part-time basis. These individuals would be able to lower their transportation costs, and would thus be able to develop a neighborhood network for cardboard, office paper, or other recyclables, saving businesses dumping charges, with added convenience. The entrepreneur would be able to redeem his materials, at the redemption center from where the materials could be efficiently baled and transported to the end users, with lowest possible transportation costs.

This program has the potential to provide new jobs, and also provide a risk-free method for counties, and other local governments to achieve waste abatement, reducing the need for landfills. Through efficient transportation systems, this program can save energy costs, while at the same time increasing the amount of materials recycled.

PELLETIZED FUEL FROM WASTE MATERIALS

According to the U.S. Office of Technology Assessment, the energy contained in the municipal solid waste which we discard into landfills each year is equal to 2% of our nation's energy needs, or equal to two-thirds the energy produced by nuclear power produced in the United States.

Many efforts are being made to burn solid waste for energy, but many of these systems have been accompanied by major technical problems, and likewise involve often enormous capital risk. Problems especially occur when attemps are made to incinerate solid waste as is, with all metals, glass, wet garbage, and other non-combustibles.

One simpler, low-risk technology, according to the Office of Economic Opportunity in Minnesota, would be to process the dry, combustible portions of the waste stream into fuel pellets, using much the same technology which is now being advanced in the area of wood fuel pellets from wood wastes. In other words, the technology would process for fuel only those materials which are easily burned. This simpler technology would allow greater fuel efficiency, drastically reduced capital costs, and much greater flexibility in the use of fuel -- possibly for use in schools, and other public buildings. According to OEO estimate, a manufacturing facility for the fuel pellets could be set up for under $200,000.00, which is 10 - 20% of the cost of developing a mass incinerator to handle comparable volumes of materials.

Goodwill Industries has installed a burner which can burn solid waste to provide energy, but again, it has had technical problems. However, with

the use of a relatively homogenous, pelletized fuel, many of these difficulties might be eliminated. If successful, Goodwill, and other rehabilitation agencies might be able to provide for the manufacture of such fuels. If also successful, it might be very possible to locate manufacturing facilities all over the state, especially targeted in areas of high unemployment. The implications for future jobs are immense, as well as the possible reduction of up to 60% of our present waste stream destined for landfills. This particular technology would dovetail extremely effectively with corresponding recycling and composting programs for metals, glass, yard wastes, and other organic materials.

There is very little risk in piloting this project. QEP has approached the Department of Energy, and Goodwill about utilizing existing wood pellet plants, and Goodwill-supplied combustible materials. This could then be tested at virtually no cost to state government. Del Edwards of Goodwill, and Tony Perpich of the Department of Energy are presently investigating the possibilties.

CENTRAL METALS RECOVERY FOR MINNESOTA

Work is presently underway to develop a facility for recycling heavy metals which are now considered to be hazardous wastes. This program is being developed under the direction of Dan Schuster of Enthone, Inc., Chairman of the Metals Recovery Task Force of the Metropolitan Council, and a member of the Governor's Quality Environment Project.

Stricter controls regulating the discharge of toxic metal wastes are being implemented in 1984 which will force companies to develop environmentally sound pollution control equipment. This, unfortunately may prove cost-prohibitive to many in the metal plating, and circuit-board manufacturing industries, a basis for high-tech and other industries essential to our state's economy. Over 2,000 jobs would be threatened. A metals recovery facility, will however, achieve economies of scale, producing a product, and new revenues. This innovation may prove to make the Twin Cities metal plating industries not only environmentally sound, but cost-competitive with other metropolitan areas. Through this facility, up to 17% of the state's hazardous waste stream may be diverted into safe, productive re-use.

This program sets an example not only for other states, but also for other industry sectors, coordinating small waste generators with public agencies to solve environmental problems cost-effectively.

Central metals recovery, with explanations by Dan Shuster served as a focal point for a forum developed by QEP in December, 1982 attended by over 100

representatives of industry, environmental groups, government agencies, and others.

CURBSIDE RECYCLING -- PILOT FOR SMALL COMMUNITIES

Delano, Minnesota. This project has proven significant in the high response rates generated, and its acceptance by the community, serving as a source of pride. The project includes a curb-side pick-up conducted by a different community organization each month, and serves as a model for other small communities. The program is run at no cost to city government and has become a successful fundraiser for 18 volunteer organizations in the community.

The first Saturday of each month, a different community group operates the curbside recycling program, picking up newspapers, glass, steel, and aluminum cans, following pre-mapped routes. The program is efficient, taking as little as one and a half hours in this community of 2500, and earns as much as $200.00 for each organization involved, when the profits are shared at the end of the year. With this kind of participation in the program, high rates of recycling are ensured, and the community has become adept at preparing their recycled materials.

Most importantly, this program can be easily implemented in many other communities. There are few start-up costs. Pick-ups are used to provide the curbside service along different routes. Materials are stored in stationary semi-trailers, which make good loading docks for transporting materials to the markets.

Delano's project has been described in a national publication of "Resource Recycling" magazine, and is being programmed into a nationwide computer

system. The program has also received awards at the state level. Most importantly, the project in Delano has served to heighten awareness, serving to develop and reinforce cooperation between all sectors of the community.

This program would be excellent for other communities to also reduce their solid waste problem, as well as raise money for community groups, and saving money on disposal charges. The program is particularly suited for defined communities, to ensure participation rates. It is most important that markets are lined up before the program has begun, and the costs are determined for transporting the recycled materials to market. If markets are not available, it is very difficult to set up an economically viable program. If the costs saved from dumping are transferred to the recycling program, the program can be a tremendous fund-raiser for community organizations, likely doubling their revenues, and strenghthening the community as well.

The Delano Program was initiated through the work of the Governor's Quality Environment Project, and the Crow River Federated Women's Club, under the direction of Val Donahue, and Mary Robinson.

RECYCLING: A TRANSPORTATION NETWORK

One of the major problems in encouraging the development of successful recycling programs is the availability of markets. Often the cost of transporting materials to markets is prohibitive. Recycled materials are bulky, low value; therefore, transportation costs are most often the major factor in an economically viable program. However, these costs could be greatly reduced by utilizing back-hauling capacities of many trucks. Recyclables are not perishable, and can be picked up and delivered at times convenient for the carrier -- with very flexible transportation schedules.

It would be possible to develop or plug into a computerized system, which would pinpoint available loads ready for hauling, and empty trucking capacity going in the direction of the markets. For backhauling, an efficient, cost-effective system of handling must be developed to lower costs. Backhauling has the potential to lower costs of transporting recyclables from far corners of the state, to rates comparable to those of the nearer suburbs.

Through the Governor's Quality Environment Project, work is being done to test a simplified handling system, in the QEP pilot recycling community of Delano, Minnesota. Lightweight, plastic bins are being used for storage and handling. The bins stack inside of each other, to take up little room when empty, but can fill the truck when full of secondary materials. The bins are easy to lift, convey, and can work well with or without machines, and heavy equipment. The bins are relatively inexpensive and are produced

in Minnesota. This system of containerizing recycled materials would enable backhauling to take place, with convenient storage, and handling. It has a great significance in that it could drastically lower transportation costs, enabling recycling to occur on a major scale statewide.

RECYCLING MARKET DEVELOPMENT -- ANIMAL BEDDING

Newspapers are the major element of most community recycling programs. Newsprint, however still makes up 5% of the waste stream destined for landfills, even after recycling has occured. There is virtually no market for magazines, which make up another 2% of the waste stream. Unfortunately, recycled newsprint is also subject to the vagaries of a volatile marketplace. At times, prices may be quite high, and at other times recycling centers cannot even give their paper away. Thus, the stability of the current paper market, and the availability of nearby paper markets most often determine the success of a recycling program.

Major markets for recycled paper in Minnesota are the packaging industry in the Twin Cities (chiefly, Champion Paper of St. Paul, the inventor of the traditional paper drive), and various cellulose insulation industries around the state. When the economy is on an upswing, markets for paper are strong with a greater need for packaging, and cellulose insulation in an expanding housing industry.

To counter the vagaries of the marketplace, there is a need for an expanded market for newsprint, and most certainly used magazines. One market which is presently being developed is animal bedding, using shredded paper in place of straw. This would constitute a market which would be available to rural communities all over the state, and would also help to round out some of the price fluctuations. An expanded, available market for paper would mean that many more communities could have the possibilities of developing economically successful programs.

The Quality Environment Project brought the potential of this future market out in a meeting designed to bring together citizens affected by prospective landfills, particularly in rural areas. Many of the farmers who are threatened by future landfills are in an excellent position to do the experimentation required to develop the market, and promote the product. Kermit Dietrich, of Preserve Green Acres, and a founding member of QEP, is presently testing the possibilities on his farm in western Hennepin County. A future project for QEP would be to take those results, and work towards promoting similar efforts in rural areas around the state through Ag Extension, agricultural publications, and other networks to reach farmers. The development of animal bedding as a market would allow recycling to take place all over Minnesota, and would help to lower many communities dependence on landfills, as well as bringing money to community organizations.

CELLULOSE INSULATION

Encouragement of the use of cellulose insulation for government and home consumption would encourage the markets for an important use of recycled newsprint - helping to improve the profitability of recycling operations. Encouraging this industry would combine a wasted resource, with labor which might otherwise by unemployed, and under-utilized capital to cut energy costs, and solid waste costs to the State of Minnesota. This would represent a more efficient use of some of Minnesota's natural and human resources -- those which are presently non-productive, or counter-productive. It would be worthwhile to investigate how disposal costs, costs of unemployed labor, and energy costs could be combined to develop an even more cost-effective home weatherization program in Minnesota, using cellulose insulation, expanding upon the efforts of Community Action Programs in the state.

Another way to promote the cellulose insulation industry is to encourage the use of this Minnesota made product in public buildings wherever possible, keeping updated on current specifications required and available. QEP investigated state use of cellulose insulation, and found it to be virtually non-existent, because of outdated information presently being used by the state architect's office. This was brought to their attention by QEP, and by Representative Ken Nelson.

The further potentials in utilizing cellulose insulation in a jobs/weatherization program to employ Minnesotans, and reduce our state's

energy bill are significant. Work can now be done to bring utilities, government agencies, and the cellulose insulation and other weatherization industries to possibly discuss joint courses of action.

RECYCLED PACKAGING: MARKET DEVELOPMENT

To develop markets for recycled materials, markets must be ensured for the final products produced. A vital market for recycled paper in the Twin Cities is the recycled packaging industry. The use of recycled packaging is dictated by consumer preferences, and purchasing agency decisions.

An effective avenue to encourage recycled packaging would be to develop an informative presentation, or guide on the benefits to the economy, and to the environment through the use of recycled materials. An educational program much like the one developed in California by the League of Women Voters, marking products in recycled, or recyclable packaging might be developed in Minnesota, helping to educate the public, and ensuring future markets for the recycling industry in Minnesota.

TREE PLANTING

An important component in improving and maintaining our ecological and economic environment in Minnesota is through tree planting and through wise forestry management of public and private lands to receive the optimum multiple benefits from our state's forests, woodlots, and urban forests.

The Quality Environment project has worked to inititiate and coordinate efforts in these areas. With the complete loss of an annual budget of over $7 million for the Minnesota Shade Tree Program, there is a large gap left in terms of public education, monies for planting trees, and encouragement and promotional efforts for tree planting.

By working to coordinate the efforts of existing organizations for a more powerful impact there is an excellent potential to fill this gap, and accomplish major efforts to work to improve our forest resources, and forestry industries. There are many agencies working in the area of tree planting in both the public and private sectors. QEP is working to develop communication between these agencies, and others interested in promoting tree planting, to avoid duplication of efforts, and accomplishment of projects which would otherwise not be achieved.

Trees do much to beautify the communities in which we live. Trees not only beautify the landscape, they provide habitat for wildlife, absorb air pollutants, and provide oxygen to breathe. They reduce wind speed to control soil erosion, and to cut the windchill to save energy in heating our homes. In the summer, trees provide shade to save energy by keeping our homes cooler and increase our property values.

Most importantly, trees are a renewable natural resource, providing the invaluable materials with which we build our homes, and make the products we use every day. Trees are essential for us to live as we do, and are the source of thousands of jobs in Minnesota.

Trees also require effective management. In our communities they are eaten by insects, weakened by disease, and damaged by construction, or carelessness. Each year, world-wide, more and more forests are being cut for fuel, paper, wood products, and urban encroachment. We must ensure that tomorrow's forests will be able to meet the demands of the future. It takes 17 trees to produce one ton of paper, and just one family uses that much in one year. The Quality Environment Project is working to ensure that the trees of tomorrow will be able to meet the needs of our communities, and that the forests of tomorrow will be able to meet the demands of our citizens, providing materials and jobs for Minnesotans.

PUT DOWN YOUR ROOTS IN MINNESOTA

This tree planting program has been developed by the Governor's Quality Environment Project in cooperation with the Department of Natural Resources, the Agricultural Extension Service of the University of Minnesota , the Department of Education, the Minnesota Forestry Association, and the Minnesota Forest Industries.

The program in 1983, included a guide for setting up a tree planting program of volunteers on public lands. The Put Down Your Roots packet also described how to use the tree planting project as a fund-raiser for volunteer organizations by planting the DNR seedlings. Volunteer organizations could raise money by providing the service of planting trees and asking for donations for the trees planted. Nearly 1,000 tree planting packets were printed and distributed to organizations, individuals, and communities throughout the state.

The program was advertised through DNR press releases, public service announcements, articles in various newsletter, including the Ag Extension network, and over WCCO - AM with an appearance by Martin Rieder, former Executive Director of QEP, on the Dan Hertsgaard Show.

Work will be underway to continue and expand the program this year, possibly, using the concept of a "Tree-A-Thon" as a statewide event, for environmental organizations, or possibly the Multiple Sclerosis Society of Minnesota. Investigations are being made through Lu Stoffel, President of the Federated Women's Clubs of Minnesota, and mayor of Hastings, Minnesota, to check into these possibilities.

ARBOR DAY CELEBRATION 1983

This year's Arbor Day Celebration was initiated and developed by QEP, with cooperation from the DNR, and the Department of Education. Co-chairs of the event were Martin Rieder, and John Miller, environmental specialist of the Department of Education. With over 1,000 in attendance the event was a tremendous success. 23 communities were awarded Tree City USA citations, by Governor Rudy Perpich.

Arbor Day 1983 was developed as a way to not only recognize efforts in tree planting, but other efforts by environmental and recycling organizations under the theme, "Trees for Tomorrow". It is hoped that this day can continue to be a way to heighten public awareness of the importance of maintaining and improving Minnesota's quality environment.

Among the activities for Arbor Day were booths representing dozens of forestry, environmental, and recycling organizations, including the Acid Rain Foundation, the DNR, and Sierra Club, and the American Lung Association. Entertainment was provided for this noon-hour picnic on the Capitol Mall by the Harding High School Band, Smoky the Bear, Chocolate the Moose, animals from the Minnesota Zoo, Elmer Elm, Woodsy Owl, the KS95 hot-air balloon, and kite flying for school children. Free tree seedlings were supplied by the Minnesota Nurseryman's Association and free soft drinks by the Minnesota Soft Drink Association.

ARBOR DAY -- 1984

Arbor Day '83 was such a success, that it was decided by a group of representatives of tree planting concerns, including the Minnesota Forest Industries, the Minnesota Forestry Association the Department of Natural Resources, the Soil and Water Conservation Districts, Hennepin County Park Reserves, the Minneapolis City Forester, the Department of Education, Ag Extension, and University of Minnesota Forestry, that Arbor Day should become an annual tradition. The Capitol Mall should be a cornerstone of activities during Arbor Month. It was decided that activities of these and other organizations should be coordinated to provide maximum impact in education, and tree planting promotion.

Arbor Day can also be a day set aside to observe the importance of all conservation in our entire environment. The precedents set in 1983 can be continued, using Arbor Day to recognize the hard work of many organizations and individuals who strive to improve our environment.

Arbor Day, and Arbor Month activities can also be used by QEP to help focus efforts of environmental groups and other concerns, to heighten public awareness, and coordinate efforts for the greatest impact.

TREE PLANTING PUBLIC SERVICE ANNOUNCEMENTS

Tree planting public service announcements encouraging Minnesotans to plant trees were developed for radio and television and distributed statewide. The television PSAs included a series of slides with scripts which were distributed to network and cable television stations and broadcast at no charge.

Next year, greater efforts can be made in the areas of public awareness. The City of Minneapolis, has a well-developed PSA which may be available for distribution statewide, according to Dave DeVoto, Minneapolis City Forester. It may also be possible to use billboards containing winning posters of the Soil and Water Conservation poster contest.

RECYCLE TO PLANT A TREE

This promotional effort might serve to accomplish two environmental goals at once. Under this program, cooperation would be enlisted from recycling redemption centers, for the collection of funds, that would be disbursed by the recycler, for tree planting efforts by the Boy Scouts and other organizations. In other words, people groups, etc. could bring in their recyclable materials and designate those funds for planting trees. This program might also be operated in conjunction with the Department of Natural Resources, which could utilize the funds for its tree planting efforts. Most importantly, this program would serve to educate and create awareness of the importance of both planting trees and recycling.

TREE PLANTING -- KEEP MINNESOTA BEAUTIFUL MONTH

QEP's first involvement with tree planting was in 1982 with Keep Minnesota Beautiful Month. A guide, accompanied by a letter to the mayor, was sent out for setting up volunteer tree planting programs to every community in Minnesota. The guide was also sent out by the Ag Extension-4H network, reaching every county, and nearly 300 other volunteer organizations in the state.

The Keep Minnesota Beautiful packet also included over 100 ideas for volunteers and their organizations in communities to help improve their environment. Materials for this month (April 24 - May 24, 1982) were prepared in conjunction with members of the Ag Extension Service of the Unviersity of Minnesota, with Lianne Anderson, Norma Lorshbough, Jim Winkler, Dave Hakensen of Padilla and Speer, and Martin Rieder of QEP.

Capitol Ground Improvement

The Capitol Grounds Architectural committee, of which QEP Council member Bill Sanders is a member, is seeking to work to improve the Capitol Grounds. It might be possible to set up a donation procedure, where citizens, or groups could cover the costs of trees, shrubs, and other landscaping materials, as a donation. This would make an excellent gift, or serve as a fitting memorial. It could certainly help to defray the costs of the Capitol Grounds Improvement project. Most importantly, this program could serve as a cornerstone for statewide activities where citizens plant trees in their communities as memorials, or as gifts to others. A similar program has been operated in Delano, Minnesota, with great success.

The day trees are to be planted, should be in conjunction with the Arbor Day celebration on the Capitol Mall. This would allow many citizens and organizations to participate in the beautification of our state capitol.

URBAN FORESTRY

A concept that is used in Scandinavian countries for urban forestry, which might be applicable in Minnesota, is routine harvesting and replanting of one percent of urban trees for economic use. This perpetuates the urban forest, helps to assure that trees are not of the same variety or maturity and helps to prevent the susceptibility of trees to disease and pest attacks.

This program might be helpful to accentuate the economic benefits of trees in our urban areas -- not only for aesthetic benefits, but for the materials and jobs which they can produce. This program could help to generate employment, and new revenues in Minnesota cities.

RECYCLING IN OUR SCHOOLS WEEK

A major emphasis of the Governor's Quality Environment Project is public education and awareness. Recycling in Our Schools Week, initiated by QEP, has been developed as an important vehicle to accomplish that goal in recycling. In 1982, a teaching packet was developed in cooperation with the Department of Education, the Minnesota Environmental Education Board, the Minnesota Soft Drink Association, Goodwill Industries, Ramsey County Environmental Health, Recycling Unlimited, the Minnesota Pollution Control Agency and the Anoka-Hennepin School Districts. The packet was printed through contributions from the private sector and was mailed upon request to 2,000 teachers across the state, under the direction of Ken Haselberger, Recycling In Our Schools Week Chairman for 1982. In 1983, in a joint effort between the above agencies and the metropolitan counties, and under the direction of John Miller, Department of Education, environmental specialist and chairman for Recycling in Our Schools Week in 1983, the program was expanded to reach nearly 4,000 teachers.

Recycling in Our Schools Week also included a poster contest, with recognition from Governor Quie in 1982 and by Governor Rudy Perpich in 1983. QEP may use the winners in producing public service announcements for television or for billboards throughout the metropolitan area.

RECYCLING IN OUR SCHOOLS WEEK EDUCATION VIDEO PROGRAM

A major goal in recycling education for the coming year, will be the production of a five-day video program for schools and possibly public television, which would visually explain concepts of recycling to students.

This program is being developed in cooperation with the St. Paul School Districts, which have the capabilities to develop the program at a greatly reduced cost. Through QEP, this program which could easily cost over $100,00 with less distribution, can be distributed statewide, for less than ten percent of the cost. This program will describe the paths of many recycled materials as they go from consumption through the recycling process. Paper, glass, steel, aluminum, Goodwill Industries and Salvation Army, composting, and energy recovery will be among topics covered.

This video program will bring together many private, public and non-profit organizations to accomplish this major joint effort. Plans are also underway to coordinate this year's teaching activities packet with the video program for maximum effectiveness.

TEACHER EDUCATION PROGRAM

"Teaching the Three R's: Reduce, Reuse, Recycle", a class developed and instructed by Ken Haselberger, of Kenneth J. Haselberger and Associates, and Cathy Berg of the Minnesota Pollution Control Agency, was sponsored through the Governor's Quality Environment Project, and the MPCA through the College of St. Thomas. The course was available for college credit, and continuing education credits, and was offered in communities throughout Minnesota, including, Marshall, Rochester, Brainerd, Duluth and Detroit Lakes.

RECYCLING PROMOTION

More work can be done educating the public through public service announcements by the various media, and through public events. Suggestions include information at the State Fair, newspaper fillers, PSAs for radio and television, recycling symbols on packaging, and continued visibility through such events as Arbor Day, environmental forums, and teacher education programs.

THE MINNESOTA COMMUNITY IMPROVEMENT PROGRAM

A major emphasis of the Governor's Environment Project in the coming year will be the development of the Minnesota Community Improvement Program. This program is being developed by QEP in cooperation with the Ag Extension Service of the University of Minnesota, the Office of Local Government, the City of St. Paul, the Minnesota Community Education Association, the Minnesota Office on Volunteer Services, the Izaak Walton League, the Sierra Club, the Minnesota Federated Women's Clubs, the Minnesota Society of Landscape Architects, the Minnesota Society of the American Institute of Architects, and many other organizations.

The Minnesota Community Improvement Program will challenge Minnesotans to improve their own communities. It will allow them an opportunity to bring together many organizations in their community to work to accomplish improvement goals. The program will recognize communities for their improvement efforts, and help to inform communities of available resources and successful projects in other communities. The program will also allow many different private and public organizations to reach out to communities through such programs as the Governor's Design Team.

Several major emphases of the MCIP this year will include:

* MCIP Resource Guide, which will include descriptions of programs and contacts within state agencies, colleges and universities, and other public and private organizations, as well as examples of successful projects from Minnesota communities.

* Minnesota Community Improvement Day. September 23, 1983. This day served as a kick-off for the Minnesota Community Improvement Program, recognized communities for their improvement initiatives and innovations. All communities are invited to learn from each other at the State Capitol, sharing their ideas and successes. Over 20 organizations are participating in workshops such as recycling, downtown improvement, planting for wildlife, and senior citizen concerns. It is very likely that this day may become an annual event.

* Teams of environmental, design, energy and recycling experts who volunteer their time to visit communities to help them with suggestions on improving their environment.

The Minnesota Community Improvement Program is being modeled after highly successful Community Improvement Programs in other states -- programs which are privately funded, often by the utilities in those states. MCIP has the potential to be even more comprehensive and successful, with networks already in place with the Quality Environment Project.

THE GOVERNOR'S DESIGN TEAM

The Governor's Design Team is being developed by QEP in cooperation with the Minnesota Society of the American Institute of Architects (MSAIA), the University of Minnesota, Ag Extension, the Minnesota Society of Landscape Architects, the American Planning Association, and other organizations. The Governor's Design Team is made up of design professionals -- architects, landscape architects, planners and artists -- who volunteer their time to visit communities in Minnesota. Meeting with citizens of the community, they develop ideas for positive improvement projects within the community, to help solve problems, and improve the quality of life for those who live there.

The Governor's Design Team began in 1982 as part of the Governor's Quality Environment Project. One community, Delano, Minnesota, was visited by a team of four architects who met with citizens and heard their complaints and suggestions. In turn, the team made suggestions and gave a direction for the town to pursue. From those recommendations, Delano has applied for grants for implementation, and has received over $35,000 to implement suggested projects.

Dassel, Minnesota was the next community scheduled to be visited by a design team, with Hastings, Prior Lake, Silver Bay, Eden Prairie, Calumet, and Marshall to follow. This program has a great potential to focus communities on improvement efforts, serving to motivate Minnesotans, and also serving to generate jobs in design professions, as well as carpenters, painters, masons, and other craftsmen. This program can go a long way towards developing and increasing the ethic of community improvement and pride in Minnesota communities.

CLEAN UP OF RAILROAD TIES

Since numerous railroad spurs have been abondoned as the mines closed, an additional problem has surfaced with the increase of old railroad ties in the state. However, this is multiplied by the disposal of railroad ties along the railroad lines throughout the state, because of a ban on the open burning of railroad ties. Therefore, the Governor's Quality Environment Program has been working with the Governor's Task Force on Railroad Ties to arrive at a suitable procedure to utilize and/or dispose of this solid waste. Task force members were representatives from: The Department of Natural Resources, the Pollution Control Agency, Railroad Companies, Power Comapnies, the Department of Energy and Economic Development, and the Department of Transportation.

The Task Force has recommended that both a short term and a long term solution be found to dispose of the ties. The recommendations are as follows:

1. Short-Term Solution: Permit some open burning
   A. Establish a time frame in which railraods will be permitted to dispose of old ties in critical areas by open burning. This would be those ties that have been removed previously and are currently laying along railroad rights-of-way. The railroads will also be allowed to burn ties removed within the time frame. The Minnesota Pollution Control Agency will establish the time frame for allowing short-term open burning after reviewing the railroads' proposed plan for developing the long-term alternatives. The Governor's Quality Environment Program will

establish timetables and, with the assistance of the DNR, develop a priority list of areas to be cleaned up.

II. Long Range Solution

The long-range solution will consist of a method, or methods, of disposal other than open burning.

SCRAP TIRE CLEAN UP

Millions of scrap vehicle tires have accumulated throughout the State of Minnesota and have become a solid waste problem. More and more landfills do not accept the scrap tires and a continuous problem exists. Governor Perpich appointed a Special Commission on Scrap Tires to report on the possible uses for these stock piles of scrap tires. Advisors from the Governor's Quality Environment Program, Mn/DOT, DNR, MPCA, DEED and State Planning Agency worked with this commission. The members of the Commission on Scrap Tires represented tire dealers, power companies and League of Women Voters. Presentations before this commission came from scrap tire collectors, processors and possible utilizers.

This commission indicated that a statewide program must be developed to recycle waste tires or use them as an alternative energy source. Collection and processing sites should be created throughout the state, and funding for this program must be provided with a one dollar excise tax per tire sold in Minnesota. There are approximately 2.5 to 3 million tires generated in Minnesota annually and 20 percent of these are truck tires. Sixty to seventy percent of all tires are purchased within 100 miles of St. Paul. The total weight of all tires generated in Minnesota is about 50,000 to 60,000 tons. At the present time, less than 20 percent of these tires end up at authorized landfills, the balance are either discarded along the countryside roadways, streams and lakes, or end up at unauthorized tire collection sites. Current estimates put the number of tires that are stockpiled in Minnesota at more than 16 million.

SALVAGE YARD (JUNK YARD) AND ABANDONED CAR CLEAN UP

Since the repeal of the one dollar motor vehicle tranfer tax for the removal of abandoned cars in 1981, there has been a steady increase in the number of these junk autos throughout the State of Minnesota. The Special Commission on Salvage Yards was appointed by Governor Perpich to address this problem. Advisors from Mn/DOT, DNR, State Planning Agency, MPCA and the Governor's Quality Environment Program worked with the members of this commission consisting of salvage yard owners, automobile dealers, environmentalists and others interested in the junkyard's problem on the aesthetic environment.

This commission made the following conclusions: First, the topic of salvage yard beautification is but one of a number of issues which significantly influences roadside aesthetics. Roadside advertising, litter, right-of-way soil erosion, and other factors are equally significant in affecting visual quality. Second, the issue of roadside beautification is of sufficient significance and complexity to warrant comprehensive study involving the state's agencies. Eighty-six percent of Minnesota's tourists use personal vehicles to reach tourist destinations. These tourists in turn contribute approximately 4 billion annually to the state economy. Third, these issues will require continuing study, and concise and effective solutions will require cooperation and open communication between the affected governmental units.

STATE SHADE TREE PROGRAM

No one living in Minnesota in the period of 1976 through 1978 could have easily avoided hearing about Dutch Elm Disease. It was headline news. Municipal budgets were seriously distorted by the costs incurred in cutting down and carting away hundreds of thousands of huge trees. To cite the most dramatic example, Minneapolis had to spend over $11,000,000 in 1977 just to deal with its urban forestry problem. The Minnesota legislature enacted a wise program mandating municipal control programs in every city in the Seven County Metropolitan area, and provided large appropriations on a matching grant basis to those communities all over the State which were willing to tackle the problem.

It is difficult to state succinctly just where we are now, since Minnesota is a large state, and the shade tree problems of communities vary as one moves from south to north in the state. In many southern communities the battle for Dutch Elm Disease has been lost, and Oak Wilt is on a substantially increasing curve. These southern communities are rightly concentrating all available resources on their replanting programs. In other areas, local control programs are being maintained, with varying degrees of success -- directly related to the varying degrees of funding of the programs. Some communities have "kept the lid on" very successfully, and are reaping both short term and long term rewards for their foresight. But the pressure is on many communities to take the short-sighted view, and many local officials do not understand that the

results of cutting out a control program will surely show up in increasing losses and increasing "tree cutting costs" as soon as the diseases get re-established. Like other elements of the urban infrastructure, the Urban Forest must be protected from deterioration, and it must be renewed on a periodic and planned basis.

BEAUTIFICATION PROJECTS

It has been widely recognized that an area's aesthetic values are one of the main reasons why people and companies locate in those areas. Minnesota, being a state rich in natural beauty, has long been an attraction for millions of people to live, work and play. There are, however, always more areas that could be cleaned up and beautified. One of the charges of the Governor's Quality Environment Project is to work with public organizations and private industries, companies and institutions to help them realize the benefits of beautifying their areas.

The most current project that we are undertaking is the beautification of the entrance road to the Minneapolis - St. Paul International Airport. This is an ambitious project to plant and landscape the entire area from the Crosstown Highway to the Airport Terminal. When completed, the project will cost in excess of $500,000. The Metropolitan Airport Commission, the Metropolitan Airport Foundation, the Minnesota Department of Transportation, the Minnesota Air National Guard, the Army Reserve, and the Governor's Quality Environment Project are working together to see this project to a successful conclusion. Working drawings have been established, and actual ground work should start as early as July of this year.

The airport area is the first view we Minnesotans's see when we return from our air travels. More importantly, however, this is the first and last impression of our beautiful state that many non-resident travelers have. There are approximately 20 million people that use our airport each year, and this project should have a major impact on them.

MINELAND CLEAN UP PROJECT

Through the years, millions and millions of tons of earth have been moved on Minnesota's three Iron Ranges -- the Cuyuna, Mesabi and Vermillion. During the years of mining, many mines have been abandoned and old equipment, parts, buildings, etc. have remained as an environmental hazard. Therefore, the clean up of these abandoned mines has to be done by the companies responsible for the deposit of debris that has accumulated over many years.

The Department of Natural Resources, Iron Range Resources and Rehabilitation and the Governor's Quality Environment Project are involved with these activities as a part of the overall clean up of Minnesota. Since the inception of this project, many mine sites have been cleaned up and landscaped, old wooden bridges and dump pockets have been removed, many mine pits have freed of debris and abandoned buildings and abutments have been removed. These projects have greatly enhanced the area for recreational uses and created a multitude of jobs in the process.