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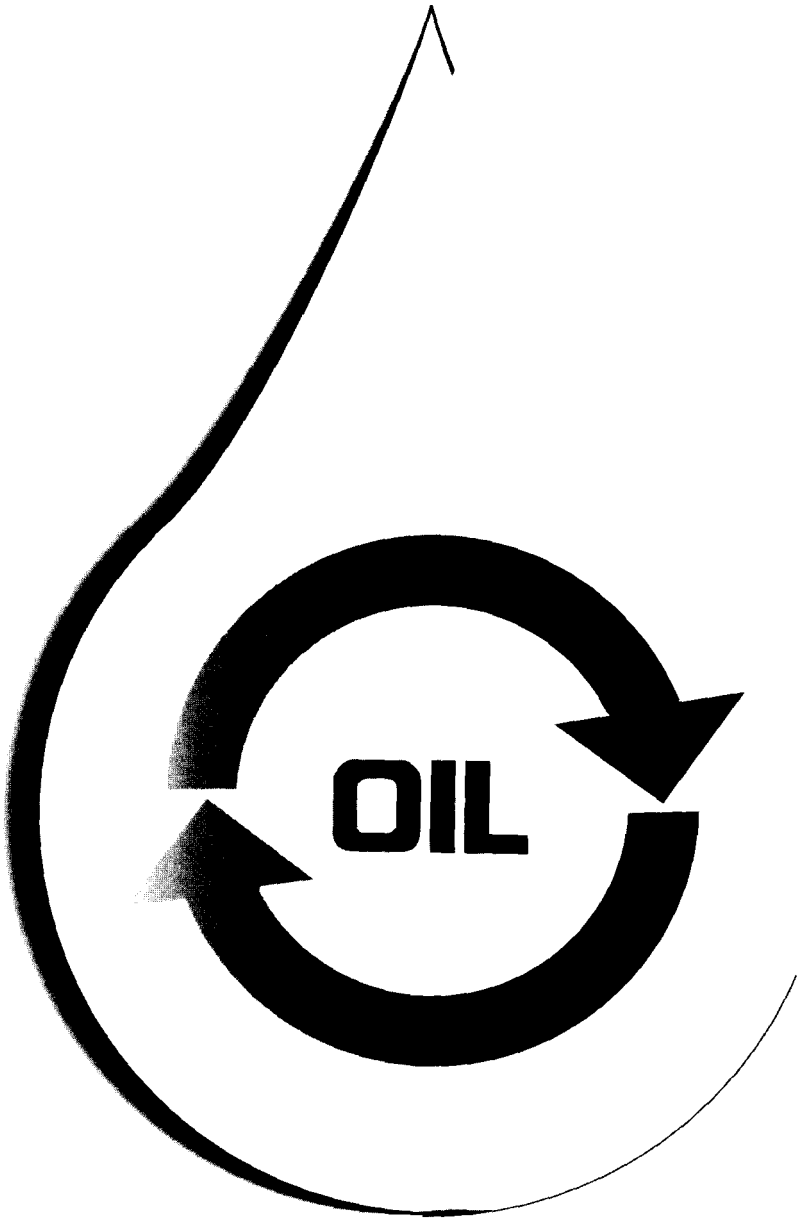
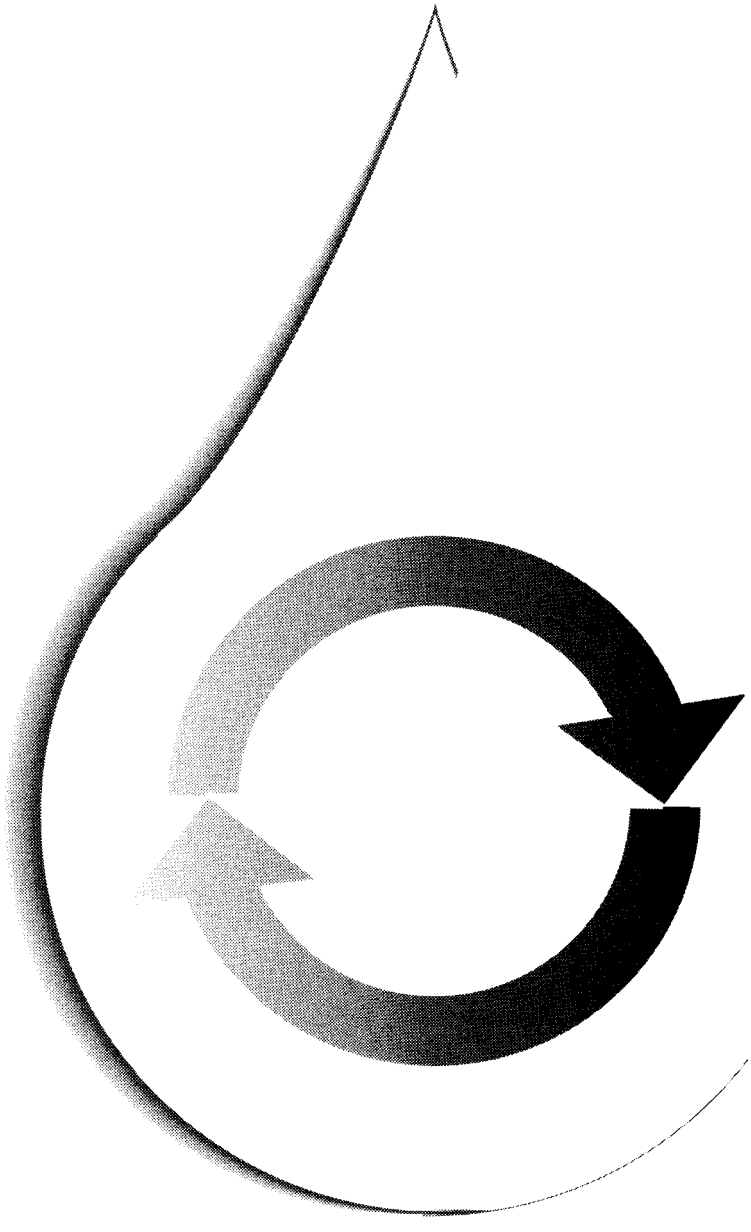
How To Setup A Local Program To Recycle Used Oil



How To Set Up A Local Program To Recycle Used Oil



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Recycling Recycled...

EPA's effort to address our country's waste problems has concentrated for many years on improving how industrial wastes are treated, stored, and disposed of. We have made great strides: industry is handling its wastes far more responsibly, and land disposal is now being replaced by safer and more environmentally protective practices such as incineration and sophisticated new chemical and biological treatments.

But these advances are only half the answer. Looking toward the future, it is clear that the more waste we generate, the more waste we have to manage. That's why EPA is putting renewed emphasis on recycling and waste reduction as the truly long-term solutions to hazardous and solid waste management. Recycling itself, in effect, is being recycled — back to the top of the priority list.

As this manual shows, effective recycling demands grass-roots commitment and cooperation. Environmental quality is everybody's business, and we hope that readers and users of this used oil recycling manual will make it theirs, too. Be a part of the solution, not a part of the problem!

Good luck in setting up your program — you are performing an important national service.

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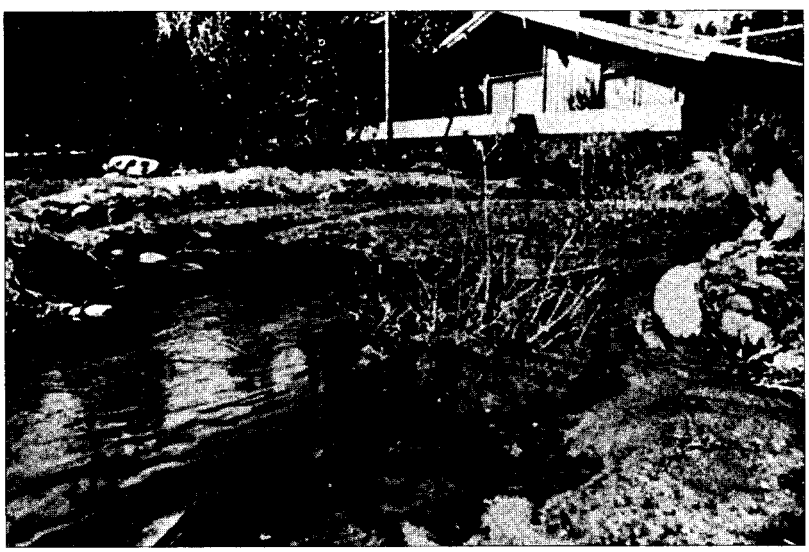
Local Action Is the Key

Mismanagement of used motor oil is a serious, but little-recognized, environmental problem. Every year, privately owned automobiles and light trucks generate over 300 million gallons of used crankcase oils. The majority of this oil — about 200 million gallons per year — is generated by individual consumers ("do-it-yourselfers," or DIYs) who change their own oil.

All automotive oils can be recycled safely and productively, saving energy and avoiding environmental pollution. Unfortunately, most DIY used oil is handled improperly. Some is emptied into sewers, disrupting treatment plants or going directly into waterways. Some is dumped directly onto the ground to kill weeds or is used to suppress dust on dirt roads. Millions of gallons are thrown into the trash, often ending up in landfills, from which the oil can contaminate ground and surface water. Only 10 percent is properly collected and sent off for recycling.

This mismanagement causes needless damage to streams, ground water, lakes, and the oceans and wastes a valuable nonrenewable resource, causing us to be more dependent on foreign imports of oil. For instance:

- The Coast Guard estimates that sewage treatment plants discharge twice as much oil into coastal waters as do tanker accidents — 15 million gallons per year versus 7.5 million gallons from accidents. A major source of this pollution is dumping of oil by do-it-yourselfers into storm drains and sewers.
- More than 40 percent of the water quality trouble calls received in the Seattle area are related to used oil and other wastes dumped down storm drains, usually by do-it-yourselfers, contaminating water bodies.



Environmental damage can be caused by used oil mismanagement.

To solve the used oil problem, we must stop careless, destructive practices and make sure that oil is, in fact, recycled. Dealing with the millions of sources involved demands a bottom-up, rather than a top-down, approach. Improving used oil management is one area where local governments, often working with private sponsors and civic organizations, are in an ideal position to help solve a major environmental problem.

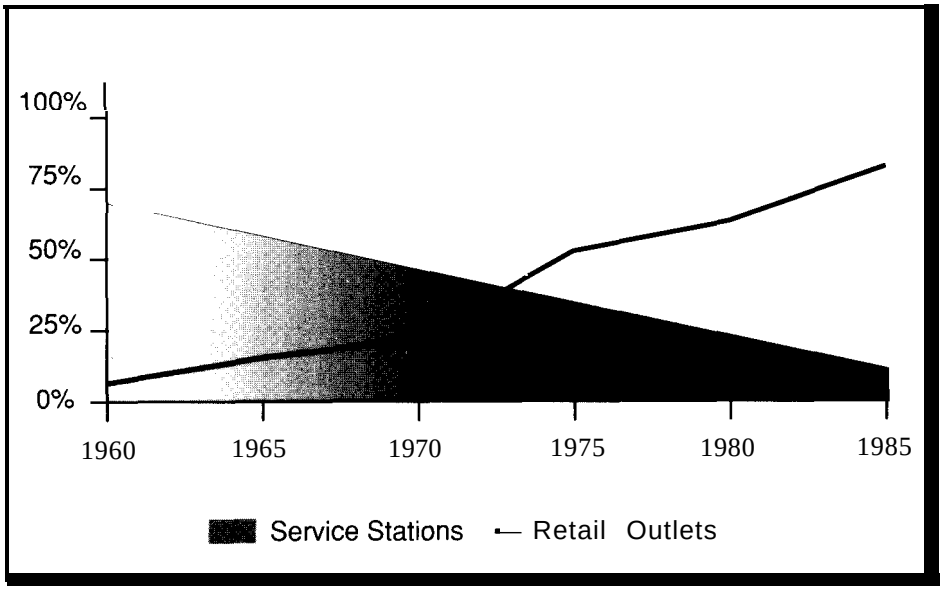
What Communities Can Do

This manual is written to help local officials or civic groups set up programs encouraging do-it-yourselfers to recycle their motor oil and to make sure that each community's used oil is handled safely and responsibly, conserving a valuable resource and preventing environmental damage. Drawing on the experience of many states and municipalities across the country, it covers a variety of issues: step-by-step design of an appropriate program, costs and logistics of implementation, publicity, and the organization of public and private groups. It also contains useful references and materials, including facts and figures on the problem itself, lists of state programs that can provide support, and sample publicity materials.

History Of the Used Oil Problem

During the 1960s, automotive engine oil market distribution patterns changed radically. Service station sales gave way to sales in retail stores. Major oil companies began selling large volumes of automotive oils through retail outletS because sales volumes permitted widespread discounts. Many stores began using oil as a "loss leader," losing money on the oil but making it up with sales of other items to consumers who came to buy oil.

In 1961, service stations accounted for about 70 percent of all sales of lubricating oil for passenger cars. Ten years later, at the onset of the energy crisis, this share dropped to about 50 percent, while mass marketers such as convenience stores and supermarkets expanded their sales share from 7 percent to 28 percent — a fourfold increase. Today, mass marketers outsell service stations 8 to 1.



Between 1960 and 1980, retail stores took over the automotive sales market. They now outsell service stations 8 to 1.

Facts About Used Oil

- **The damage used oil causes comes from mismanagement.**
- **Re-refining used oil takes only about one-third the energy of refining crude oil to lubricant quality.**
- **If all used oil improperly disposed of by do-it-yourselfers were recycled, it could produce enough energy to power 360,000 homes each year or could provide 96 million quarts of high-quality motor oil.**
- **One gallon of used oil used as fuel contains about 140,000 Btu of energy.**
- **A gallon of used oil from a single oil change can ruin a million gallons of fresh water — a year's supply for 50 people.**
- **Concentrations of 50 to 100 parts per million (ppm) of used oil can foul sewage treatment processes.**
- **Films of oil on the surface of water prevent the replenishment of dissolved oxygen, impair photosynthetic processes, and block sunlight.**
- **Oil dumped onto land reduces soil productivity.**
- **Toxic effects of used oil on freshwater and marine organisms vary, but significant long-term effects have been found at concentrations of 310 ppm in several freshwater fish species and as low as 1 ppm in marine life forms.**
- ***Publicity about* used oil *recycling can triple do-it-yourselfer participation!***

High energy prices contributed to the shift toward do-it-yourself oil changing and, for a time, also encouraged a strong recycling industry since used oil and crude prices rise and fall in parallel. In 1983, for instance, when crude oil cost about $29 per barrel, service stations and other collectors were paid up to .40 per gallon for used automotive oil. Retail lubricating oil outlets, such as Sears, accepted used oil throughout the country while the Muscular Dystrophy Association set up well-publicized community programs, using oil collection proceeds to support their organization.

Today, with crude oil prices less than half the 1983 levels, used oil recycling has changed. Most service stations have to pay a small amount per gallon to have used oil taken away and others that once accepted used oil from do-it-yourselfers either no longer do so or now charge a fee. Recycling centers, established only as pickup points for used oil collectors, also no longer receive fees and often no longer cover all their own costs. This fundamental change in the economics of recycling has greatly reduced voluntary efforts.

The Situation Today

With the broad national decline in recycling programs of all kinds, undesirable DIY practices are increasing. Even as early as 1981, studies estimated that at least 60 percent of DIY oil was either dumped (emptied into sewers or spread on roads, driveways, and yards) or simply thrown into the trash. Only 14 percent of used oil was taken to service stations or other collection points for proper recycling. Today, although comparable figures are not available, indications are that recycling rates are even lower.

Fortunately, interest in the used oil issue is on the upswing. By 1988, over half the states either had a used oil recycling program or were planning to start one.

Existing programs are successful. Michigan, which started its program as a pilot in 1979, expanded it in 1982 to include the entire state using funding from both state and private sources. With recycling centers in 62 of its 83 counties, Michigan estimates that its program recycles an extra 1 million gallons of DIY used oil per year. Since the State of Washington began a public education campaign in 1987, DIY recycling increased 21 percent over 1986. Virginia has one of the most active DIY used oil recycling programs on the East Coast, providing 527 collection centers, mostly at service stations. In 1987, it reported 327,000 gallons of DIY oil collected — about 620 gallons per station.

Appendix A provides a list of contacts through which communities and local sponsors can obtain information and assistance in setting up their own programs.

Basic Elements of a Recycling Program

In many cases, local recycling programs are cooperative efforts between local governments (towns, cities, and counties) and one or more private or semiprivate sponsors, such as environmental or civic groups, or service organizations. Local governments often assist in collecting used oil through collection centers or curbside pickup. Sponsors often help governments design and organize their programs, run the publicity campaigns and outreach, and enlist the help of resourceful and committed volunteers.

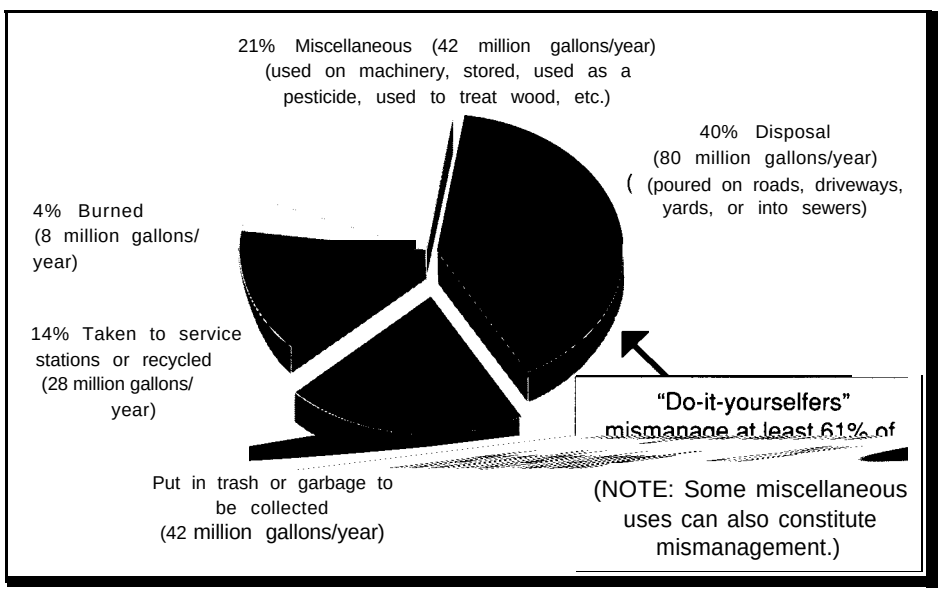
Other arrangements can be equally successful such as those run entirely by local governments or by private sponsors. Private companies can also help — used oil haulers and recyclers may act as business sponsors; car dealerships or local oil retailers also reap benefits from the publicity and customer goodwill these programs generate.

If you are thinking of setting up a program, consider the following basic pointers:

1. *Learn the facts about used oil in your state:* Call your state DIY used oil recycling coordinator (see Appendix A) for information on the status of DIY used oil recycling in your state.

2. *Bring the most effective participants together:* If your local government is thinking of sponsoring a program, seek out community sponsorship. If your community group is willing to sponsor a program, you may want to identify the most appropriate local government agency with which you can work and secure the maximum support from local business.

3. *Design and implement the program as a group:* Work together with the other participants to decide how the program will run — the type of pickup it will use, who will collect and recycle the used oil, how the program may link with other local recycling efforts, how it will be publicized, and so on. General issues may include enlisting additional volunteers, soliciting funds, finding haulers and recyclers and assessing their performance, running collection operations, and tracking progress and accomplishments.



Estimate of disposition of DIY used oil in 1981

[Source: *Analysis of Potential Used Oil Recovery from Individuals,* Market Facts Inc., March 1981]

Key Issues Before You Commit to Action

Recycling used oil can be a rewarding experience. It is an ideal way for interested groups to get constructively involved in environmental action because it deals with an important environmental problem that is best addressed at the local level.

A successful program demands commitment, energy, and sustained involvement. Before you begin, make sure that you are prepared to deal with the following fundamental needs:

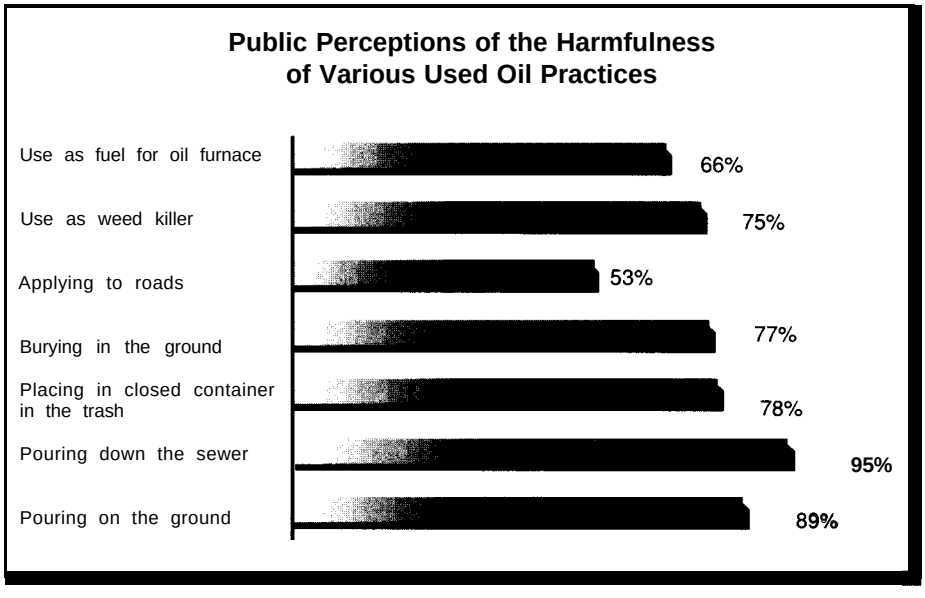
- *Ensuring adequate resources:* Used oil recycling programs are not expensive to run and can rely heavily on volunteer labor and in-kind contributions. They do need money, however, for purposes like equipping pickup or collection operations and designing, printing, and mailing publicity materials. States may offer financial assistance, but each local program will probably have to raise money on its own as well.

- *Properly managing used oil risks:* Programs must prevent other materials from being mixed with used oil. Mixing can be environmentally damaging and also may prevent haulers or recyclers from accepting your used oil.

  The key point do-it-yourselfers must understand is never to mix used oil with gasoline, solvents, pesticides, or other household chemicals before recycling. Small businesses and consumers also must never use collection centers as dump sites for solvents or other hazardous materials.

- *Paying adequate attention to haulers' and recyclers' performance:* The most obvious and dramatic environmental damage caused by used oil in recent years has been traced to unsafe hauling and recycling operations. One of the most important contributions to environmental quality local programs can make is to conduct a "safety assessment" of the performance of current and prospective haulers and recyclers in their areas.

This manual should help you address these issues effectively. Rely on it for basic information and ideas, but be creative, too!



Most consumers recognize the damage that can be done by used oil, yet only 14 percent of DIY used oil has been recycled in recent years.

[Source: *Analysis of Potential Used Oil Recovery from Individuals,* Market Facts Inc., March 1981]

Organization of the Effort:
Cooperation Is the Key

Local recycling programs can be operated by various groups working independently or together. Participants might include a local civic association, such as an environmental group or a service organization, an agency of the local government, such as the department of public works or the sanitation department, or a local business or trade group. Support from other civic groups, business people, and other local leaders is also helpful.

Whoever is involved, programs usually have a primary sponsor in either the government or the private sector. The sponsor's activities can vary widely, depending on available resources and expertise. Some civic group sponsors can be directly involved in actually collecting oil, but collection may often be left to a private business or to a local government department.

Key sponsor activities include:

- *Research:* The sponsor should research local DIY used oil recycling problems, potential new collection sites, the state DIY recyling program (if one exists), haulers and recyclers, and sources of financial and in-kind support.
- *Program Design:* The sponsor should help design the program itself, choosing likely central collection points, enlisting the cooperation of service stations or retailers, working out the logistics of curbside collection, designing publicity, and coordinating the used oil program with other local recycling efforts or household hazardous waste collection programs.
- *Publicity/Education:* This is often the most essential activity of sponsors. Sponsors should create news coverage in local media, line up speakers and speaking engagements, design and distribute signs and bumper stickers, and run a variety of media events or other promotional activities to publicize the program.

This chapter discusses the roles and relationships of potential participants. Pointers on how to actually carry out the program are contained in the next chapter.

Roles and Relationships of Participants

Government

Depending on the local government's available resources, it can take a major or a minor role in the program. Local governments can conduct used oil recycling programs entirely on their own, but may find programs are more successful, and more affordable, if local groups carry much of the responsibility, including taking the lead as the primary sponsor. A common role of local government is to coordinate collection, leaving civic groups, private business, or other participants to handle research, program setup, and promotion. Governments can also play a leadership role by procuring products made with recycled used oil.

Civic Groups

Civic groups can provide essential resources — people and time. They add credibility to the local program by lending their names to publicity and helping gain access to the local media and influential local leaders. They also can provide essential resources to the program itself — volunteers, a central phone for citizens to call for information about the program, and, perhaps, a central office. They can also raise funds or solicit in-kind services for brochures, telephones, printing, advertising, and office expenses.

Many effective local civic groups are linked to national organizations, especially organizations that have already supported used oil programs at the local level (such as the League of Women Voters). Some criteria for effectiveness include:

- *Size:* Larger organizations have more depth (more volunteers, more funding) and, in most cases, more credibility with the community.
- *Stability:* The older the organization, the more likely that it will remain available to continue the used oil program.
- *Management ability:* A used oil program needs good management. The sponsor should have a track record of handling similar complex projects.
- *Compatible aims:* The sponsor's own goals should be reasonably compatible with those of the recycling program. Environmental organizations are likely candidates, but used oil can be a high-priority issue for other groups, too. In agricultural areas, for instance, 4-H or the Future Farmers of America may have an interest in helping farmers to recycle oil and not to misuse it as a pesticide on animals or for dust suppression.

Potential Sponsoring Organizations

The following are examples of groups that could sponsor a used oil recycling program

Civic Organizations	**League of Women Voters, Jaycees, Volunteer Fire departments, garden clubs**
Educational Groups	**Cooperative Extension Service, PTA**
Environmental Groups	**Audubon Society, Sierra Club, Izaak Walton League**
Service Groups	**American Legion, Elks Club, Lions Club, Loyal Order of the Moose, Kiwanis Club, Rotary Club, Veterans of Foreign Wars**
Youth Groups	**4-H Club, Future Farmers of America, Boy Scouts, Campfire Girls**
Local Government Groups	**Environmental Protection Office, Mayor's Office, Public works Department, Sanitation Department, Water and Sewer Department**

Local Industry or Business Groups

Local businesses can provide and manage DIY collection centers, contribute money and resources to promote the program, conduct their own promotions, provide speakers for public and private meetings, and help organize other groups.

In soliciting participation from businesses, look first to those with a special interest in oil sales or recycling — haulers, recyclers, or sales centers (convenience stores, discount centers, automotive parts outlets). Local business associations, such as those serving oil distributors or car dealerships, can be invaluable in promoting the program overall and in coordinating participation among their memberships.

Finding a sponsor

Every community will probably have many potential candidate organizations that can sponsor or participate in a used oil recycling program (see list on this page). Whether you are an individual, belong to a service organization, or work for a government agency, the first step to take before contacting other possible participants is to gather basic information and sketch out the program's tentative goals and objectives. You can then approach others with a reasonably specific proposal.

Sources of Outside Endorsement

- Business leaders
- Chairperson of local Chamber of Commerce
- City/county commissioner
- City Council Director
- civic group leaders
- Director of state energy office
- Director of state used oil program
- Environmental leaders
- Fire Chief
- Mayor
- Governor
- Director of state motor vehicle administration
- Newspaper editor
- School board members
- Legislators (state and federal)
- American Petroleum Institute local chapter president
- Radio or TV personalities
- Director of state natural resources or environmental protection department

Contact your state used oil recycling representative for general information on what is going on in your area (see Appendix A). You can also draw on the materials in this manual. Assemble any pertinent local facts and figures, such as whether local service stations currently accept used oil, whether recycling programs existed in the past or exist (for other materials) now, what types of environmental problems are prominent, and so forth. Discuss the issues with local service stations, other possible collection points, and used oil recyclers or haulers listed in the *Yellow Pages* to get a feel for how much DIY used oil recycling is already going on.

With this information in hand, write or phone leaders of the most promising groups (civic groups, government agencies, or local businesses) to discuss the need for a program to collect DIY used oil, to present an outline of options for implementing the program, to discuss in general how the program might be carried out, and to explore the roles of possible participants.

If more than one group is interested in used oil recycling, the program might do well as a joint venture. If program functions are well coordinated, several organizations will provide more skills to draw upon, more volunteers to share the workload, and more influence to promote the effort.

Broader Community Support

Any program can be helped greatly if respected individuals or groups in the community support the program on television, in radio spot announcements, or as speakers at local clubs or educational institutions (see list of likely candidates on this page). This will add credibility and gain attention for your program. A program sponsor should develop a list of such supporters, personally contact them, and make sure that their endorsements and contributions are properly acknowledged. The good will developed and maintained by these community leaders will greatly enhance your efforts.

Designing and Implementing the Program

The details of every program will be different, but a few common elements stand out — researching local used oil practices, coordinating the efforts of all participants, identifying the program's service area, designing its logistics, publicizing its existence, and generally educating the public about the need to recycle.

Background Research

Before actually designing your program, and even before setting out its formal goals and objectives, research all pertinent local facts about DIY used oil recycling and all possible local and state sources of technical and financial support.

Building a Network of Support and Information

The first step is to find out what DIY used oil recycling programs already exist in your state or community. Your state's DIY used oil contact will be helpful. The state may be a source of information, materials, and financial support. It may also be able to provide in-kind services or put you in touch with successful programs elsewhere in the country.

Check the appropriate Regional Office of the U.S. Environmental Protection Agency (see Appendix A), as well as your state's environmental, natural resources, and energy departments.

Local officials can work together with the management of a service station to establish a collection center.

Assembling the Facts

The next step is to gather all pertinent factual information on the used oil recycling situation in the area in which you plan to build a program. Your program's civic or business sponsors are usually the appropriate groups to conduct this research. Use your network of contacts at the state and local level, as well as any other identified groups offering technical support.

Questions to research before designing a program include the following:

Have used oil recycling programs been attempted before? If so, what was their experience?

Contact groups that might have prior experience in sponsoring used oil recycling programs, including groups like the local chapter of the Izaak Walton League.

Are there any particular local environmental problems needing special attention in your area?

Examples might include dumping oil into sewers, which causes disruption of treatment plants or pollutes waterways, or changing oil on public lands. Contact the city government or environmental groups for this kind of information.

Where do do-it-yourselfers buy their oil, and about how much is sold?

Check convenience stores, auto discount stores, department stores, supermarkets, and other possible outlets; they will be among the best places to advertise the program.

What used oil haulers and recyclers are currently active in the area, and have they performed adequately?

Get names from service stations, the *Yellow Pages*, and state and local used oil programs. Be in touch with your state environmental protection agency and other used oil programs for information about the performance of these haulers and recyclers.

Do any publicly accessible collection points now exist?

Check service stations, fire stations, landfills, car dealerships, taxi and rental car fleet garages, auto discount stores, and local governments.

Where should convenient additional points for collecting used oil be located?

Consider high-traffic areas in the city center or popular shopping areas.

Does the community support any other recycling efforts with which a used oil program could be linked?

Examples include drop-off stations, buy-back centers, and curbside collection of newspaper, aluminum, plastics, and glass.

Does the community have a program to collect household hazardous wastes (solvents, paints, pesticides, etc.)?

Check with the local public works or environmental department. It may be possible to include DIY used oil recycling in their collection program.

What local, state, and federal standards will apply to the program?

These could include standards for health, zoning, spill control, and fire prevention; containment specifications; and waste management requirements. Check with your local government and with your state used oil coordinator.

What kind of interest might the local media generate?

Contact newspapers and radio and TV stations.

What kind of finding or technical support can you tap into?

Consult your state program or neighboring local programs first. Your own organization, local businesses, and local government are other good sources.

Setting Program Goals To guide the actual design of the program, it is important to lay out its goals and **objectives** as clearly as possible.

If specific local environmental problems need attention, focus on solving them first. Problems might include the dumping of oil into sewers, do-it-yourselfers changing oil in parks or other public areas, poor performance of local used oil haulers or recyclers, or lack of segregation of household hazardous wastes (such as pesticides, antifreeze, paint thinners, household cleaners, and contaminated rags) from used oil prior to recycling.

Other goals could include linking the used oil program with other local recycling programs for paper, glass, or aluminum. Where established household hazardous waste programs exist, these too might well be integrated with the used oil effort.

Plan now how you will evaluate program progress. Not only will a formal tracking system help in managing the program and allocating dollars and volunteer efforts where they are most needed, but any facts you gather will be highly useful to state and federal programs interested in promoting used oil recycling.

Likely Collection Station Locations

- Auto supply stores
- Automobile service stations
- Convenience stores
- Discount stores
- Car dealerships
- Retail outlets that provide oil changing service
- Recycling drop-off centers
- Fire stations
- State auto inspection stations
- Municipal garages
- Government and private garages
- Landfills open to the public (especially in rural areas)
- Marinas

Deciding on Collection Methods

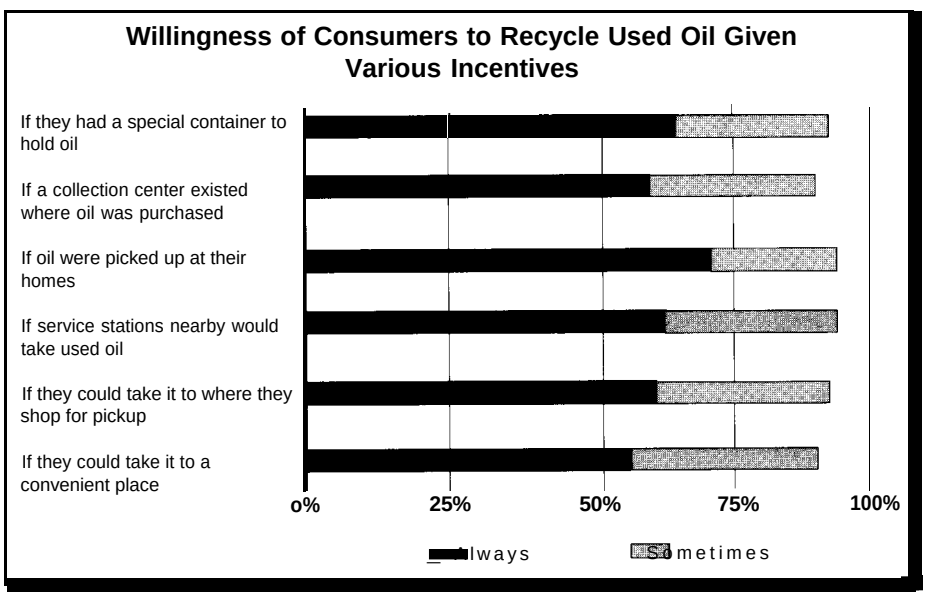
The collection system is the cornerstone of the entire program. The more convenient and accessible the collection, the more used oil will be returned for recycling. Of the several methods available, choose the one best suited for your local area and your available resources.

The two basic collection programs are (1) at curbside, either as a regular part of trash and garbage collection, or as part of pickups for other recyclable materials (such as glass, plastics, aluminum, and paper), and (2) at central collection stations. Curbside collection is the more convenient, and therefore the more effective method.

Curbside Collection

Used oil can be collected at the curb with regular trash pickup or with other recyclables. The used oil program must work with the collectors so that they can integrate used oil into their operations. Trash collection trucks or trucks designed for collection of recyclables can be retrofitted with a used oil collection tank or a rack on which to store containers of used oil. The used oil will need to be transferred from the truck to a holding tank until it is picked up by a reputable hauler.

This approach is being successfully used in several areas of the country. Curbside collection must be continually announced and promoted.



A large majority of the public says it would be willing to recycle oil properly if it were convenient.

[Source: *Analysis of Potential Used Oil Recovery from individuals.* Market Facts Inc., March 1981]

Periodic special curbside collections of used oil ("milk runs") are an economical alternative to routine curbside collection. In a 1981 Market Facts survey, 70 percent of all respondents said they would *always* save their used oil if it were picked up at home (see chart on page 17).

Periodic collection requires lots of publicity and the same type of coordination with sanitation departments or trash/recyclables collectors as routine collection, unless the program can arrange alternative trucks and personnel to make the pickups. Oil collected at the curb is generally transfered to a centrally located tank until pickup.

The best time for special curbside collection of DIY used oil is during the peak oil-changing season, late spring and early fall. A program combining special collections during the oil-changing season with central collection points might be as convenient for do-it-yourselfers as regular curbside collection. Your program might start with an experimental curbside collection in one selected neighborhood, perhaps involving a neighborhood volunteer group. The Boy Scouts, for example, might run a one-time campaign as a special community project. This type of initial trial could provide a measure of the potential volume of DIY-generated used oil. At the same time, the program might conduct a minisurvey to define homeowners' preferences for used oil collection.

Central Collection

A central collection station is a place where do-it-yourselfers can drop off used oil in an appropriately designed drum or tank. The station should be well marked to ensure that it is used for uncontaminated lubricating oil only and should be serviced regularly by a hauler to make sure that there is always room to receive more oil.

Many sites, such as service stations, taxi or car rental garages, or car dealerships, will have used oil collection tanks already installed for their own use. The program should start by determining whether these existing installations will agree to accept used oil from consumers. It may be necessary to increase the size or number of tanks, or increase the frequency of collection, to accommodate the additional volume of oil expected. (See Appendix C for sample letter to prospective collection center.)

If new collection sites are needed, they might be established at private or public locations — stores selling discount oil to do-it-yourselfers, public facilities (such as fire stations or landfills), or new, specifically designated used oil drop-off points. Some of these locations may already have onsite used oil storage facilities. If they do not, properly labeled barrels or tanks can be placed appropriately.

Proper Collection Containers — The "Milk Run" Concept

Although these services have almost disappeared, milk delivery and diaper delivery are familiar to most Americans. In days gone by a milkman would deliver fresh milk in glass bottles and pickup the empties in exchange. Similarly, diaper services drop off a stack of clean diapers and collect soiled diapers at the same time.

This same "milk run" concept can be applied today to recycling used oil. The 1981 Market Facts survey found that nearly 80 percent of survey respondents said they would always or usually recycle their used oil if they had a special container that would protect their car from messy spills. A recycling program can provide plastic one-gallon milk jugs with caps, or other special reusable containers, to do-it-yourselfers for the collection and storage of used oil. These containers can then be picked up through special curbside collections.

Providing special containers need not be expensive — the Sunnyvale, California, program purchased suitable containers for an average of .19 each in 1985. Regardless of the type used, recycling containers should be leakproof, with tight-fitting caps. All do-it-yourselfers should be educated about the importance of proper containers.

Location and accessibility are important to increasing the convenience of collection stations. Try to choose sites that are along, or close to, main arteries or popular shopping areas. Also, the more public the site, the more likely people will be to drop off their used oil.

To encourage potential collection stations to participate, stress the following selling points:

- Participation should increase consumer traffic at the establishment and can therefore boost business.
- Participation can increase customer good will.
- Participation helps fight pollution and conserves a valuable natural resource.
- Participation may contribute a small source of revenue from the sale of used oil. (This depends entirely on local economics.)

Be sure to clearly explain the responsibilities of managing a collection station. Depending on the program, these may include:

- Prominently displaying a sign indicating that the location is a publicly available used oil collection station.
- Providing a suitable collection container easily accessible to the public.
- Visiting the collection site on a regular basis.
- Making arrangements with a hauler to recycle the oil. (Again, the program should be prepared to assist in making these arrangements if asked, or at the least should review the potential haulers to provide insight into adequate performance.)
- Installing safeguards to prevent the deposit of hazardous, incompatible, or other materials that could contaminate the used oil; prevent fire hazards; and control and respond to spillage. Proper preparation of all prospective collection stations will ensure smooth operation of the program. (See Appendix D for sample oil collection tank design.)
- Keeping records of how much oil is collected and who hauled it.

Steps for Establishing a New Collection Site

Make initial contact	**Write a letter to the potential station manger explaining the program and its benefits. (See Appendix C for example letter to prospective collection center operators.)**
Follow up with phone call	**Reiterate the importance of the program and stress the benefits of the program to the station and the community. Avoid calling during peak business hours (for service stations, 7-9 am and 5-7 pm).**
Visit likely participants	**Schedule an interview with those most likely to participate. Discuss equipment, procedures, layouts, and responsibilities. Be forthright about responsibilities and possible problems. Check out the site itself.**
Send follow-up letter	**Thank prospective participants for their help. Promise to include them in literature and promotions.**

Finding a Hauler/ Recycler

The used oil, whether from central collection points or at curbside, must be **picked up in a timely manner by responsible, authorized used oil haulers and sent to** reputable recyclers. Your program must ensure that haulers:

- Have valid licenses and operate in a safe and environmentally sound fashion.
- Maintain regular records of quantities of used oil collected, delivered, and handled.
- Deliver used oil to reputable management facilities,

The last requirement is probably the most important. Environmental damage linked directly to used oil mismanagement tends to be associated with substandard recycling facilities.

Haulers and recyclers are often listed in the Yellow *Pages.* You will have identified used oil haulers and recyclers through your initial contacts with commercial facilities that recycle oil and through the state used oil program.

If possible, you should evaluate recyclers to check that their operations are environmentally sound. Although much may be evident from a visit (substandard operations tend to look substandard), important shortcomings may not be evident to the layperson. The heart of every operation is the materials being processed. A recycler should know where its used oil is coming from, should check the oil it receives to see whether it is acceptable for processing, and should store it properly on site. Good operations have documented procedures for accepting oil, require laboratory checks of each shipment, and keep each client's oil segregated until after testing. Their receiving and storage areas are neat and clean, with no evidence of spills, and their storage areas include containment berms or other containment enclosures.

A processing area in a good recycling operation will likewise include containment measures to prevent losses and contain spills. Closed process systems are more desirable than open systems; they prevent vapor losses and should be free of strong odors. The basic concern in processing is to avoid uncontrolled losses that might result from haphazard processing or lack of maintenance.

Product storage areas — like receiving areas — should be neat and clean, with no evidence of spills. If the product is transferred to drums for shipment, the main storage area should include containment protection.

Finally, all recyclers should be in compliance with all applicable state and federal requirements. You should check to make sure all necessary inspections have been conducted and that any violations noted during inspections have been corrected. After talking to the facility operator, you can verify your findings by calling the appropriate agencies and speaking with the local inspector.

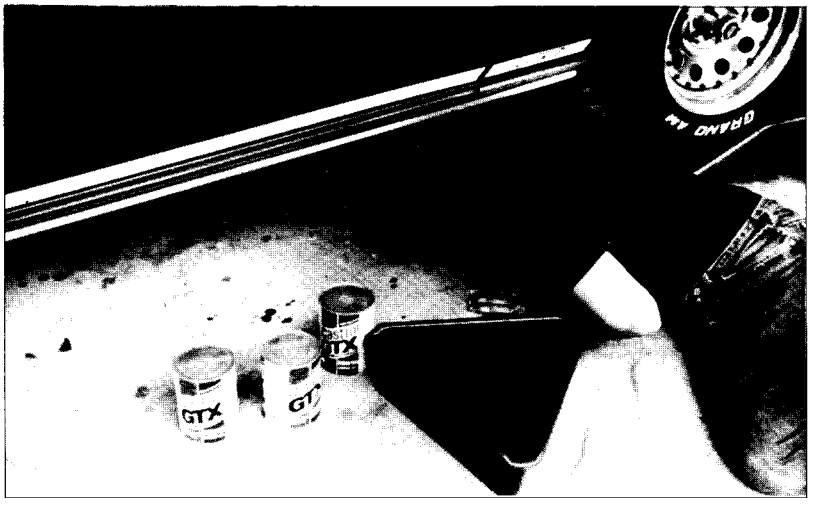
Ideas for Promoting a Used Oil Program

Once the basic framework of the program has been set up, the most important next step is to make the public aware of the program. The typical do-it-yourselfer is usually a male between 16 and 45 years old (people older than 45 usually have their oil changed for them). Many of those younger than 16 will be driving someday and may become do-it-yourselfers. Your campaign should therefore have three targets — current do-it-yourselfers, young people in school, and the general public.

Promotional activities for a used oil recycling program should have two goals — first, to educate the public about the used oil problem and to encourage more responsible oil management and, second, to tell do-it-yourselfers exactly how to use the program to recycle oil.

Your educational efforts should raise awareness of the damage used oil can do, its value as a resource, and how to change auto oil in an environmentally sound manner. You should emphasize that used oil that is re-refined or made back into a motor oil is as good as regular oil and that purchasing recycled oil helps support the used oil re-refining industry. Encourage the purchase of re-refined oil where it is available. The publicity portion should alert do-it-yourselfers about (1) the location of collection points, (2) the availability of curbside collection (if any), (3) how to obtain appropriate containers, and (4) any other elements of your program aimed directly at the do-it-yourselfer.

Promoting a used oil program involves taking advantage of all possible opportunities to bring your message to the public, educating them about the importance of the used oil issue and how to manage their oil properly, and telling them how to take advantage of your program's services. Since do-it-yourselfer activity is seasonal, your promotions may not have to run the full year, but education of the general public and young people can be a year-round activity.



Many do-it-yourselfers change their own oil.

The program should be in full operation during the time when do-it-yourselfers are most likely to change their oil — the spring through summer months. Have all collection sites in operation by the time warm weather arrives. Promotion should be in high gear one to two months beforehand to give do-it-yourselfers plenty of time to take advantage of new services. For instance, in the Northeast, a program might begin its publicity in March when winter weather is over. Publicity would peak in May and June, the spring months when most DIYs would be changing their oil, and again in September, the beginning of cooler weather. In the warmest U.S. climates, seasonal variations may be minor and you will want consistent, year round publicity.

Below are some suggestions of ways to promote your program. Although they introduce proven approaches, you should be creative and invent more ways yourself.

Program Kickoff

An open meeting is one way to kick off your program by combining public education and publicity to recruit more volunteers and increase partipation among DIYs, potential collection centers, and local area leaders.

Time: Pick two hours on a weekday evening or a weekend day.

Invitations: Invite any community service organizations already interested, as well as representatives of business and government.

Press Coverage: Meet with a reporter from a local newspaper two to three weeks in advance. Provide the reporter with background information about the problem, your program, and the groups involved.

Announcements: Send public service announcements to local radio and TV stations stating the purpose of the meeting and its date, time, and location.

Press Release: One week before the meeting, send out a press release to local newspapers.

This first meeting will serve to get people involved. Stress the basics about the nature of the used oil problem and its solution. By the time the meeting is over, you should have a list of the names and phone numbers of additional volunteers.

If your state has a used oil recycling coordinator, he or she would be an excellent speaker at the kickoff meeting. This is also a time to call on local celebrities or community leaders to ask them to lend their influence to the program (see list of possible candidates in previous chapter).

Used Oil Recycling Hotline

The used oil program should, if possible, have a publicly advertised, local telephone "hotline" that people can dial during normal business hours (and if possible on weekends) to get information regarding collection center locations, how to obtain suitable used oil containers, and how to participate in the program as a volunteer. This might be provided by the civic group sponsor, but could also be run by the local government. In addition, if your state has its own used oil hotline, that fact should be advertised locally as a part of your program.

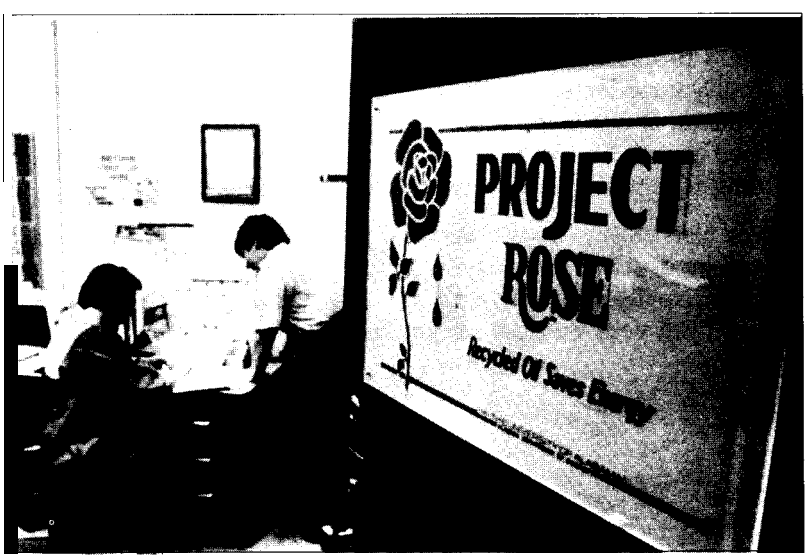
Newspapers, Television, and Radio

Public service announcements are a good way to get your message out through newspapers, television, magazines, and radio. There is usually no charge. You can use them as reminders to do-it-yourselfers to change their oil properly and take advantage of collection centers. They are also invaluable for publicizing special events. Use public service announcements as a vehicle for outside endorsements from business and community leaders.

Full-length articles and editorials are another way to promote your program through newspapers, community newsletters, and local consumer publications. These may include feature articles by environmental editors or correspondents, editorials supporting the program, letters to the editor from prominent people in the community, and so forth. Solicit this type of coverage and be prepared to supply background material as necessary. Keep a list of press and media contacts for your area so that you can reach them quickly.

Where possible, generate news coverage of the program through announcements of special events, progress made, major contributions, new endorsements or testimonials, newly established collection sites, or tie-ins with other environmental and energy groups, businesses, or local government. Send out press releases and call reporters with developments as they occur. Radio and television offer special opportunities for publicity and education through participation of program members or supporters in public affairs shows.

A press release should answer the basic reporting questions of "who, what, when, where, and why." This information should be found in the first sentence or two of the release so the reporter or news department can quickly learn what the press release is about and decide whether it deserves coverage. Learn local press schedules and send releases so they reach reporters three or four days before the events you want covered.



Project ROSE in Alabama is one of the country's most successful organized promoters of used oil recycling.

Public Service Announcements on Radio and Television

All broadcast stations must provide air time for public service announcements. Ask station managers about their requirements and format. Such announcements are not difficult to produce — on television, they may be nothing more elaborate than a slide of your program logo with a brief audio message in the background. Many stations will work with public interest groups to design short, inexpensive announcements.

Samples:
15-second announcement:

IF YOU CHANGE YOUR CAR'S OIL YOURSELF, REMEMBER TO RECYCLE IT PROPERLY. CALL THE SPRINGFIELD USED OIL RECYCLING PROGRAM AT 222-7777 FOR THE LOCATION OF A COLLECTION STATION NEAR YOU. THAT'S 222-7777.

20-second announcement:

USED OIL IS NOT A WASTE. IT'S A VALUABLE RESOURCE, BUT IT CAN CAUSE SERIOUS HARM TO LAKES AND STREAMS IF THROWN AWAY. PROTECT THE ENVIRONMENT BY CALLING THE SPRINGFIELD USED OIL RECYCLING PROGRAM AT 222-7777 FOR THE LOCATION OF A CONVENIENT USED OIL COLLECTION STATION NEAR YOU. THAT'S 222-7777.

Never editorialize in a press release. On your press release you should provide the name of a person reporters can contact for additional information. Make sure, however, that this person actually does have additional information and will not simply repeat what is already in the release. If your program is new and unfamiliar to the media, attach a background paper to fill in the basics on the program itself.

News conferences are useful, too, but only if you have something substantial to announce (such as receiving a grant or establishing a cooperative working relationship with the city). If possible, have a local "name" on hand to add focus to the coverage. Also, try to hold the conference somewhere that will generate good pictures for the press or television — at a recycling center with trucks in the background, for example.

Posters, Handouts, and Brochures

Printed materials of all kinds can be distributed through many outlets. Posters with the program logo should be prominently displayed at all collection centers and, where possible at points of purchase. Brochures and leaflets can be distributed wherever motor oil is sold — especially at discount stores, supermarkets, and department stores catering to do-it-yourselfers. (See Appendix B for sample brochures and poster.) Handouts can be both educational and promotional, warning against pollution, teaching proper management techniques, and publicizing local collection programs. Try to distribute these materials to everyone who may be a do-it-yourselfer by persuading stores selling lubricating oil to place them where the oil is displayed or near the cash register, or to insert them into each bag carried away. The local office of your state motor vehicle department may be willing to distribute them with licenses or registrations.

Bumper stickers are also effective, with very high visibility to exactly the right audience. They can be distributed (perhaps at the collection centers) to everyone who actively participates in or supports the program. Local motor vehicle fleets can be asked to put your bumper sticker on each of their vehicles to help promote the program.

Mailings and Mailing Inserts Regular or special-purpose mailings are another powerful technique for education and publicity. Often local businesses, such as banks, department stores, **insurance companies, or utility companies, can be convinced to include inserts or** brochures from your program in their mailings as a public service. These can be used to remind people of collection center locations, as educational tools to instruct do-it-yourselfers on proper oil changing and oil management techniques, and so forth.

Logo of the West Michigan Environmental Action Councils

Schools High schools are natural places to present short programs on the benefits of used oil recycling. Future do-it-yourselfers can be reached with information on the damages caused by used oil, how to change automobile oil properly, and how to participate in your local collection program — either as a recycler or as a volunteer helping run the program. Drivers' education classes are a perfect place to include this information. You may even be able to persuade your state to include used oil recycling in motor vehicle examinations or study guides.

Suggested Locations for Notices, Posters, and Promotional Materials

At point of purchase of oil (display, at cash register, as bag inserts)

Used oil collection stations

Municipal and other government offices

Public libraries

Chamber of Commerce information racks

Nature centers

High school auto shop classrooms

College bulletin boards

Grocery store bulletin boards

Office and factory bulletin boards

Bank lobbies

Banks and utility companies' monthly mailings

Incentive Programs Beyond education and an appeal to public concern for the environment, incentive programs offering money and other prizes can be very useful for increasing participation. Such incentives include:

- Merchandise discount coupons given with the original purchase of motor oil, redeemable on return of used oil.
- Instant prizes issued on the return of used oil, redeemable for merchandise.
- Large-prize contest coupons, issued at the point of purchase and entered into a drawing when oil is returned to a participating collection center. Prize drawings could be held at regular intervals, such as quarterly, with winning numbers posted at participating collection points.
- Inexpensive kickoff prizes, such as funnels or used oil containers, offered at collection sites to all participants during the first days or weeks of the program.

Project ROSE provides ***incentives to*** *encourage participation.*

Administrative Issues

This section discusses program management, funding and budget issues, tracking the progress of your program over time, and legal requirements.

Maintaining your Program

Collection centers, public displays, information centers, and other possible elements of your program will need to be maintained throughout the year. In addition to routine checks, schedule major maintenance activities at the beginning and end of the oil-changing season in your area — usually in the spring and fall. These are the times to renew or replace faded signs and posters, print new batches of brochures and fliers, and clean and maintain collection centers. Short-term volunteer labor can help. You could recruit extra hands from local high schools or scout troops or through public meetings.

Tracking Program Accomplishments

Tracking the success of your program, while not essential, can help you manage and publicize it better — you can use the facts you gather to boast about success or publicize problems you need help to solve. Ask collection site operators and curbside pickup participants to report on a regular basis, monthly if possible, on the amount of used oil collected and turned over to used oil haulers. If money is being paid for the oil and is going to the collection sites rather than to the program, ask for copies of their payment records. In addition, ask haulers to report the amount of used oil collected and conveyed to recyclers.

Answering the following questions will help program tracking:

1. Is the program staying within its budget? If not, where can financial requirements be adjusted?
2. How much oil is being recycled each month? How do comparisons against the previous year's performance stack up — are trends up or down?
3. Which collection centers are the most successful? (Follow-up analysis may indicate why.)
4. Is the program complying with its schedule? Should it increase the frequency of curbside pickups?
5. Is oil being picked up from collection centers so do-it-yourselfers always find collection tank space available?
6. Are the collection centers having any problems with storage capacity, schedules, contamination, sanitation or housekeeping, incentives, publicity, or schedules of collection? If so, what techniques have been used at other collection centers to solve these problems?
7. Are used oil collectors and haulers having problems with handling increased quantities of oil, routing, frequency of pickup, or contamination?
8. Which public education efforts have worked well? Which have not?
9. Which advertising efforts have brought the greatest response?
10. Are there any problems with incentive programs?

Some of this information will come from collection station operators. To minimize the burden on these operators, you might gather the information in person at two-month intervals during the oil changing reason and at six-month intervals off-season. Keep your questions short, direct, and simple to answer. Since it is inconvenient to measure precise volumes of oil recycled, expect estimates rather than exact numbers. Be sure to express your thanks for each station's continued participation, preferably in follow-up letters as well as in person.

You will assemble other information, such as budget figures, from haulers (who should be keeping much more detailed and exact records than collection centers) or from the public (perhaps through informal surveys).

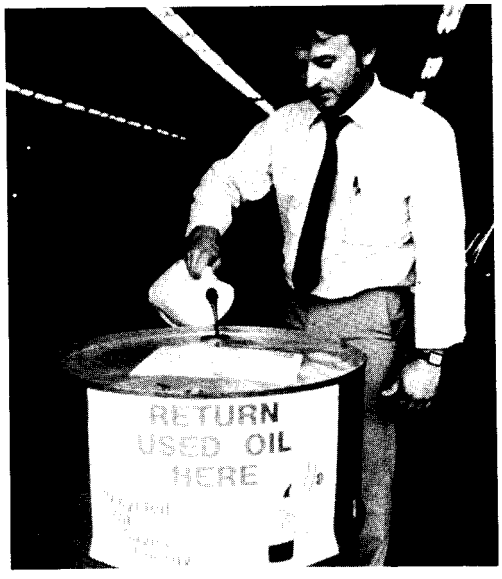
NOTE: Any statistics generated will also interest your state used oil coordinator and federal agencies interested in used oil issues (the U. S. Environmental Protection Agency (EPA) and the Department of Energy).

Legal Requirements

You and others involved in your program should be aware of any legal issues relating to health safety, and environmental performance that could affect your activities. There are a few federal requirements affecting used oil management; state requirements vary. EPA Regional Offices can provide information on current federal regulations. States may have their own laws and regulations governing used oil recycling; your state used oil program would be the authority on these and any other requirements. (See Appendix A for list of state and EPA Regional contacts.)

Generally, the most significant legal issue is to keep used oil from being mixed with any hazardous waste. The easiest way is to prevent mixing used oil with any other substances. Since preventing mixing will be as important to a reputable hauler as it is to your program, all participants should be willing to cooperate on this issue.

Other important legal requirements include making sure that you are complying with local zoning, health, safety, environment, and fire laws. Contact the pertinent local agencies for advice.



Used oil must be recycled separately from other materials and liquids.

References

Publications

The following publications have been used in developing this document, and maybe useful to those developing their own local used oil recycling programs.

1. Bider, William L., et al., "Composition and Management of Used Oil Generated in the United States," Franklin Associates, Ltd., Prairie Village, Kansas, November 1985.

2. Michigan Department of Natural Resources, "Background Report: Used Motor Oil Market Development Study," prepared by Franklin Associates, Ltd., Lansing, Michigan, February 1987.

3. Nolan, John J., Christopher Harris and Patrick O. Cavanaugh, "Used Oil: Disposal Options, Management Practices and Potential Liability," Government Institutes, Inc., Washington, DC.

4. U. S. Department of Commerce, "Survey of Household Hazardous Wastes and Related Collection Programs," prepared by SCS Engineers, Inc., Long Beach, California, NTIS PB87-108072, Washington, DC, October 1986.

5. U. S. Department of Energy, "Analysis of Potential Used Oil Recovery from Individuals," Final Report, prepared by Market Facts, Inc., Chicago, Illinois, DOE-AC19-79BC1OO53, Washington, DC, July 1981.

6. U. S. Department of Energy, "Waste Oil: Technology, Economics, and Environmental Health, and Safety Considerations," prepared by Mueller Associates, Inc., DOE/EV/ 1045O-H2, Washington, DC, January 1987.

7. U.S. Environmental Protection Agency, "Environmental Consequences of Waste Oil Disposal in POTWs," prepared by Pope-Reid Associates, Inc., Washington, DC, July 21, 1987.

8. U.S. Environmental Protection Agency, "Evaluation of the Use of Waste Oil as a Dust Suppressant," Final Report, prepared by Franklin Associates, Ltd., Washington, DC, September 1983.

9. U. S. Environmental Protection Agency, "Review of Cooperative Public and Private Sector Programs Promoting Do-It-Yourselfer Used Oil Collection, Recovery, and Recycling," prepared by Versar, Inc., Washington, DC, October 13, 1987.

10. U. S. Environmental Protection Agency, Memorandum from Al Feldt, Economic Analysis Staff, "Revisions to the Used Oil Baseline Analysis," June 4,1987.

Acknowledgements

We are particularly grateful to the help of the following State and local programs in providing photographs, examples of letters, handouts, brochures, or technical advice.

1. Project Rose (Recycled Oil Saves Energy), The University of Alabama, Tuscaloosa, Alabama 35487-6373

2. California Oil Recyclers, Inc. and Evergreen Oil, Inc., Newark, California 94560

Appendices

Appendix A	**Used Oil Contacts/List of U.S. Environmental Protection Agency Regional Offices**
Appendix B	**Sample Brochures and Sample Collection Center Poster**
Appendix C	**Sample Letter to Prospective Collection Centers, Sample Letter to Encourage Participation, and Sample Press Releases**
Appendix D	**Sample Oil Collection Tank Design**

Appendix A

State Contacts on Used Oil Recycling

The following list contains EPA's most recent directory of state used oil recycling contacts. Contacts, if your name, address, or phone number is incorrect or if there are others who should be included on the list, please inform Sarah Carney, U.S. EPA, 0S-301, 401 M Street, S. W., Washington, DC 20460, (202) 382-7932.
(Updated August 1988)

Alabama
Ms. Janet H. Graham
Project ROSE Coordinator
Box 6373, Tuscaloosa, AL 35487-6373
205-348-4878

Mr. Daniel Cooper
Chief of Land Division
Hazardous Waste Branch
Department of Environmental Management
1751 Federal Drive, Montgomery, AL 36130
205-271-7746

Alaska
Mr. Stan Osburn
Department of Environmental Conservation
P.O. Box O, Juneau, AK 99811
907-465-2653

Arizona
Ms. Stephanie Wilson
Department of Environmental Quality
2005 N. Central, Phoenix, AZ 85004
602-257-2317

Arkansas
Mr. Ed Davis
Industrial Development Commission
One State Capitol Mall, Little Rock, AR 72201
501-371-1370

California
Ms. Carol Brow
Solid Waste Management Board
1020 9th Street, Suite 300, Sacramento, CA 95814
916-322-1446

Mr. Leif Peterson
Department of Health Services
Alternative Technology Section
P.O. Box 942732, Sacramento, CA 94234-7320
916-324-1807

Colorado
Mr. Greg Starkebaum
Solid and Hazardous Waste Section
Department of Health
4210 East 11th Avenue, Denver, CO 80220
303-331-4830

Connecticut
Mr. Charles Zieminski
Department of Environmental Protection
State Office Building
165 Capitol Avenue, Hartford, CT 06106
203-566-4633

Delaware
Mr. John Posdon
Division of Facilities Management/Energy Office
P.O. Box 1401, Dover, DE 19903
302-736-5644

District of Columbia
Russel Hawkins
Department of Public Works, 6th floor
2000 14th St. NW, Washington, DC 20009
202-939-8115

Florida
Mr. David H. Kelley
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road, Room 238
Tallahassee, FL 32399-2400
904-488-0300

Georgia
Mr. John Olivier
Environmental Protection Division
Department of Natural Resources
Floyd Towers East, 205 Butler Street
Room 1154, Atlanta, GA 30334
404-656-7802

Hawaii
Mr. Denis Lau
Chief of Hazardous Waste Program
Department of Health
PO Box 3378, Honolulu, HI 96801
808-548-6410

Idaho
Dr. John Moeller
Department of Health and Welfare
450 West State Street, 3rd Floor, Boise, ID 83720
208-334-5879

Illinois
Mr. James Mergen
Environmental Protection Agency
2200 Churchill Road, P.O. Box 19276
Springfield, IL 62794-9276
217-785-4437

Indiana
Mr. James Hunt
Department of Environmental Management
105 South Meridian Street , Indianapolis, IN 46206
317-232-4535

Iowa
Mr. Stu Schmitz
Department of Natural Resources
900 East Grand, Des Moines, IA 50319
515-281-8499

Kansas
Mr. Richard Flanary
Department of Health and Environment
Bureau of Waste Management
Bldg 730, Forbes Field, Topeka, KS 66620
913-296-1609

Kentucky
Mr. Charles Peters
Department of Environmental Protection
Natural Resources and Environmental Protection Cabinet
18 Reilly Road, Frankfort, KY 40601
502-564-6716

Louisiana
Mr. Tom Patterson
Department of Environmental Quality
Hazardous Waste Division
P.O. Box 44307, Baton Rouge, LA 70804
504-342-4677

Maine
Mr. Richard Kaselis
Department of Environmental Protection
State House Station #17, Augusta, ME 04333
207-289-2651

Maryland
Dr. Cliff Willey
Maryland Environmental Services
2020 Industrial Drive, Annapolis, MD 21401
301-974-3291

Massachusetts
Ms. Cynthia Bellamy
Division of Hazardous Waste
Department of Environmental Quality Engineering
One Winter Street, 5th Floor, Boston, MA 02108
617-292-5848

Michigan
Ms. Julie Stoneman
West Michigan Environmental Action Council
1432 Wealthy, SE, Grand Rapids, MI 49506
616-451-3051

Mr. Hien Nguyen
Department of Natural Resources
P.O. Box 30028, Lansing, MI 48909
517-373-0540

Minnesota
Mr. Kevin O'Donnell
Waste Management Board
1350 Energy Lane, St. Paul, MN 55108
612-649-5750

Mr. Randall G. Hukriede
Minnesota Pollution Control Agency
520 Lafayette Road North, St. Paul, MN 55155
612-296-9395

Mississippi
Mr. Jack McCord
Bureau of Pollution Control
Department of Natural Resources
P.O. Box 10385, Jackson, MS 39209
601-961-5171

Missouri
Mr. Bruce Martin
Department of Natural Resources
P.O. Box 176, Jefferson City, MO 65102
314-751-3176

Montana
Mr. Bill Potts
Solid Waste Management Bureau
Department of Health and Environmental Sciences
Cogswell Building - Room B201, Helena, MT 59620
406-444-2821

Nebraska
Mr. Dale Gubbels
Nebraska State Recycling Association
P.O. Box 60729, Lincoln, NE 68501
402-475-3637

Nevada
Mr. Curtis Framel
Office of Community Services
1100 East William St., No. 117
Carson City, NV 89710
702-885-4908

New Hampshire
Ms. Wendy Waskin
Waste Management
Department of Environmental Services
Health and Welfare Building
6 Hazen Drive, Concord, NH 03301
603-271-2900

New Jersey
Ms. Athena Sarafides
Office of Recycling
Department of Environmental Protection
401 E State Street, Trenton, NJ 08625
809-292-0331

Ms. Joanne Held/Mr. Gary Price
Department of Environmental Protection
32 East Hanover Street, Trenton, NJ 08625
609-292-8515

New Mexico
Mr. Mike Sanders
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Environmental Improvement Division
Health and Environmental Department
P.O. Box 968, Sante Fe, NM 87504-068
505-827-2924

New York
Dr. Roberta Weisbrod
Department of Environmental Conservation
50 Wolf Road, Albany, NY 12233
718-482-4949

North Carolina
Ms. Judy Lund
Department of Human Resources
P.O. Box 2091, Raleigh, NC 27602
919-733-2178

Ms. Mary MacDaniel
Southeast Waste Exchange
Univ. of NC at Charlotte
Charlotte, NC 28223
704-547-2307

North Dakota
Mr. Dave Switlick
Division of Waste Management and Special Studies
Department of Health
1200 Missouri Avenue
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Ohio
Ms. Susan Buchanan/Mr. Kevin Clouse
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1800 Water-Mark Drive
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Oklahoma
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811 SW 6th Street, Portland, OR 97204
503-229-5253

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503-229-6534

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717-787-7382

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83 Park St., Providence, RI 02903
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803-734-5200

South Dakota
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Department of Water and Natural Resources
Air Quality and Solid Waste Programs
Joe Foss Building, Pierre, SD 57501
605-773-3153

Tennessee
Mr. Frank Victory
Department of Health & Environment
Customs House
701 Broadway, Nashville, TN 37219-5403
615-741-3424

Texas
Mr. John Fatchford
Head of Small Quantity Generator Program
Texas Water Commission
Hazardous and Solid Waste Division
P.O. Box 13087, Capitol Station, Austin, TX 78711
512-463-7761

Utah
Mr. Ronald Firth
Division of 011, Gas and Mining
355 West North Temple, 3 Triad Center
Suite 350, Salt Lake City, UT 84180-1203
801-538-5340

Vermont
Mr. John Miller
Agency of Environmental Conservation
103 South Main Street, Waterbury, VT 05676
802-244-8702

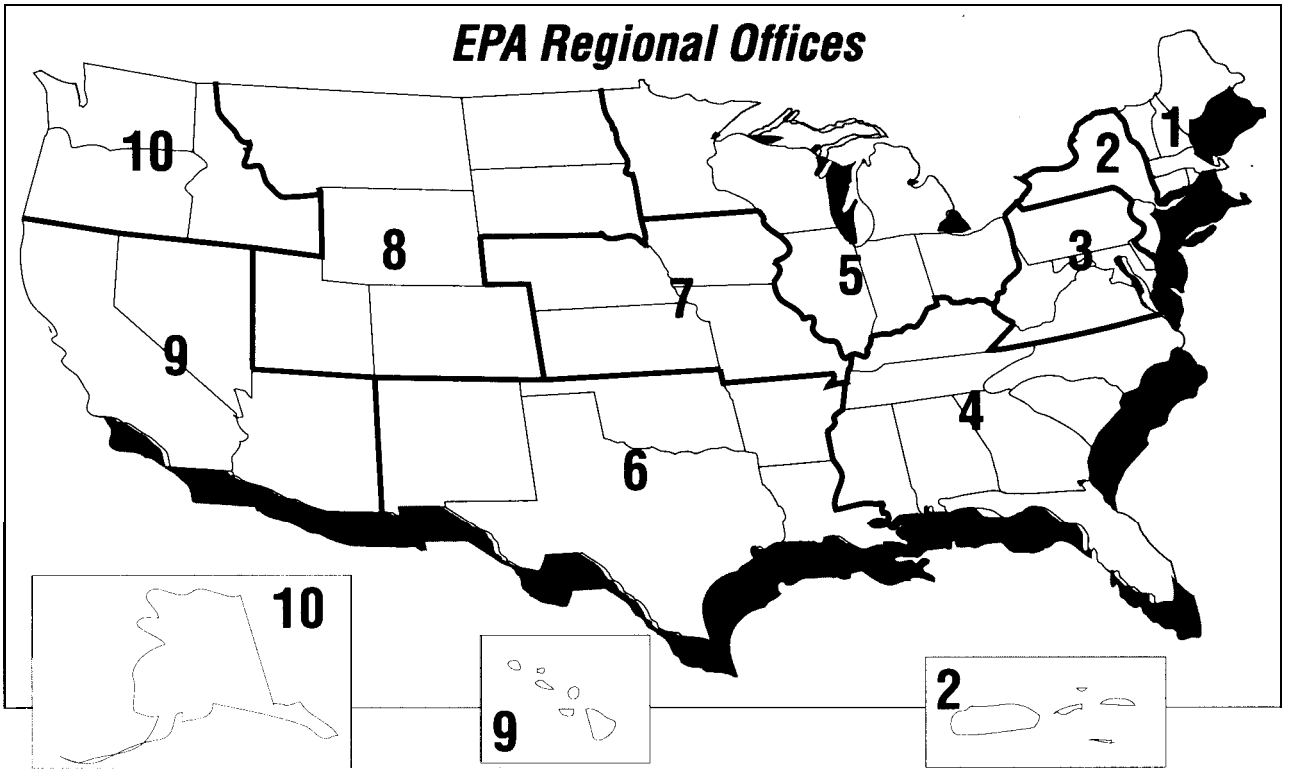
Virginia
Mr. Alan Lassiter
Division of Energy
2201 West Broad Street, Richmond, VA 23220
804-367-1310

Washington
Ms. Rhonda Hunter
Department of Ecology
Mail Stop PV-11, Olympia, WA 98504-8711
206-459-6356

West Virginia
Mr. William Willis
Fuels and Energy Office
1204 Kanawha Blvd., 2nd Floor
Charleston, WV 25301
304-348-8860

Wisconsin
Ms. Linda Lynch/Mr. John Reindl
Department of Natural Resources
P.O. Box 7921, Madison, WI 53707
608-266-5741

Wyoming
Mr. Dave Finley
Solid Waste Management Program
Department of Environmental Quality
Herschler Building
122 West 25th Street, Cheyenne, WY 82002
307-777-7752



REGION 1
Environmental Protection Agency
John F. Kennedy Federal Building
Room 2203
Boston, MA 02203
FTS: 8-835-3715
DDD: (617)565-3715
Hours: 8:30am - 5:OOpm EST/EDT

REGION 2
Environmental Protection Agency
26 Federal Plaza
New York, NY 10278
FTS: 8-264-2525
DDD: (212) 264-2525
Hours: 8:OOam - 6:OOpm EST/EDT

REGION 3
Environmental Protection Agency
841 Chestnut Street
Philadelphia, PA 19107
FTS: 8-597-9800
DDD: (215) 597-9800
Hours: 8:OOam-4:30pm EST/EDT

REGION 4
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, GA 30365
FTS: 8-257-4727
DDD: (404) 347-4727
Hours: 700am - 5:45pm EST/EDT

REGION 5
Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604
FTS: 8-353-2000
DDD (312) 353-2000
Hours: 8:OOam - 4:30pm CST/CDT

REGION 6
Environmental Protection Agency
1445 Ross Avenue
12th Floor, Suite 1200
Dallas, TX 75270
FTS: 8-255-6444
DDD: (214) 655-6444
Hours: 8:OOam - 4:30pm CST/CDT

REGION 7
Environmental Protection Agency
726 Minnesota Avenue
Kansas City, KS 66101
FTS: 8-757-2800
DDD: (913) 236-2800
Hours: 7:30am - 5:OOpm CST/CDT

REGION 8
Environmental Protection Agency
999 **18th** Street, Suite 500
Denver, CO 80202-2405
FTS: 8-564-1603
DDD: (303) 293-1603
Hours: 8:OOam - 4:30pm MST/MDT

REGION 9
Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105
FTS: 8-454-8071
DDD: (415) 974-8071
Hours: 8:OOam - 4:30pm PST/PDT

REGION 10
Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101
FTS: 8-399-5810
DDD: (206) 442-5810
Hours: 8:OOam - 4:30pm PST/PDT

AppendixB

Sample Brochure

WHAT HAPPENS THEN ?

- Used oil can be re-refined into a good-as-new lubrication oil. Oil never wears out, it just gets dirty.

  It takes 42 gallons of crude oil to produce 2 1/2 quarts of new lubricating oil. But just one gallon of used oil can be re-refined into the same high quality 2 1/2 quarts of lubricating oil.

Used oil can be reprocessed into a fuel oil.

One gallon of used oil reprocessed for fuel contains about 140,000 BTUs, of energy and can be burned very efficiently.

Recycling used oil could reduce national petroleum imports by 25.5 million barrels of oil per year, and save much of the energy to process it. (University of Alabama/ Alabama Energy Division, 1986.)

Washington State law declares that it is the policy of the state to collect and recycle used oil (Chapter 19.114, RCW). Additionally, it is unlawful to spill oil into the ground water or surface waterways of the state (Chapter 90.48, RCW).

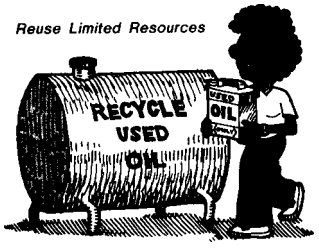
printed on 100% Recycled Paper

RECYCLE USED OIL

Prevent Water Pollution

Protect Public Health

Reuse Limited Resources



Illistrations by Tim Schlender

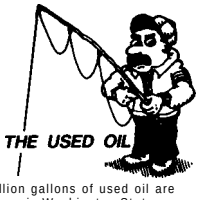
For Information:
Call toll-free *1-800-RECYCLE*

WASHINGTON STATE DEPARTMENT OF ECOLOGY
Litter Control & Recycling Program
Olympia, WA 98504

THE USED OIL PROBLEM

What Can You Do?

Waste oil has the most negative environmental impact of all automotive products because it's insoluble, persistent, and contains toxic chemicals and heavy metals. Oil sticks to everything from beach sand to bird feathers. It floats on and pollutes our waterways. It is slow to degrade and evaporate. A small amount seriously contaminates large quantities of drinking water.



HOW BIG IS THE USED OIL PROBLEM ?

More than 4.5 million gallons of used oil are discarded every year in Washington State.

More than 2 million gallons of used motor oil (enough to fill a medium sized tanker) ends up in Puget Sound. Much of it is dumped into storm drains that empty into streams and lakes that feed the Sound.

Used oil is the largest single source of oil pollution (over 40 percent)in our nation's waterways. Most is dumped by do-it-yourselfers.

In 1960, service stations performed 90 percent of the automotive oil changes. Today do-it-yourselfers change about 60 percent of the automotive oil.

Most used oil changed by do-It-yourselfers is dumped down a storm drain, poured on the ground, or sent off to a landfill in the garbage.

WHAT ARE THE EFFECTS?

Dumping of used oil in storm drains and on the ground pollutes watersheds, Puget Sound, and underground water supplies.

- Used oil contains toxic chemicals, carcinogenic hydrocarbons and heavy metals (lead, zinc, arsenic, chromium, cadmium) which are harmful to the environment and public health.

One pint of oil can produce a slick of approximately one acre on surface water.

Fish, waterfowl, insects and aquatic life are threatened by used oil in waterways. Floating plankton and algae (a basic food source) are killed on contact with oil.

Very small amounts of oil rinsed over shellfish beds can contaminate the flavor of clams and oysters.

Less than 300 parts per million can ruin the taste of fish.

Used oil placed in the garbage seeps through the landfill to contribute to leachate and comtamination of groundwater supplies.

One quart of oil will foul the taste of 250,000 gallons of water.

Used oil should not be applied to roads for a dust suppressant, as new oil sometimes is.

Over **90 percent** leaves the road surface on dust particles or is rinsed into the state's waterways with rain runoff, according to EPA study.

Used oil carries a load of heavy metals and toxics.

Burning unprocessed used oil can pollute the air we breathe with elements potentially harmful to human health.

WHAT CAN YOU DO? RECYCLE !

RECYCLE used oil from cars, boats, motorcycles, and lawnmowers.

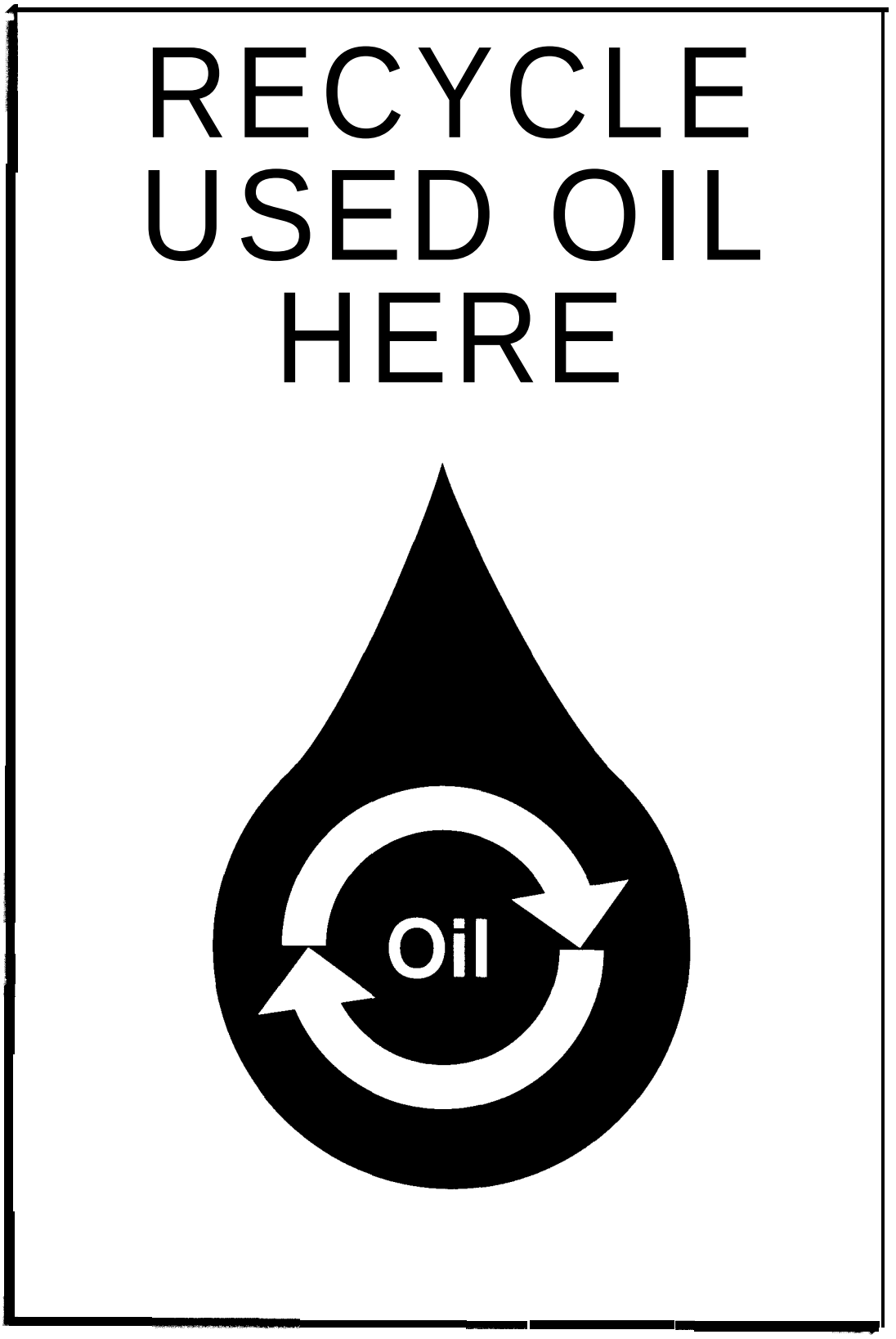
HOW ?

Take it in a clean, sealed comtainer (i.e., milk jug) to the nearest participating recycling center or service station accepting uncontaminated used oil. For locations, call theDepartment of Ecology toll-free recycing hotline, 1-800-RECYCLE.

Current market fluctuations have eliminated many of the financial incentives of the used oil recycling program, and the service station **owners may have to pay to have** oil removed from their tanks. However, most participating stations have chosen to remain in the program.

Used oil should never be mixed with antifreeze, engine degreasers, gasoline, paint thinner, solvents, cooking oil, etc., since these contaminants interfere with the reprocessing or re-fining process and are very expensive to remove.

Sample Collection Center Poster



Appendix C

Sample Letter to Prospective Collection Center Operators

(Date)

(Name)
(Address)

Dear _____

We would appreciate your help in a community used oil recycling project designed to conserve energy and protect our environment.

We are planning a broad-scale program aimed at capturing used oil from do-it-yourself oil changers. The residents of our town will be encouraged to participate. They will be informed of the energy potential and the value of recycled oil—that it need not be wasted but can be reprocessed and used again.

As you know, many of our citizens change their own oil and would be willing to cooperate with us in this endeavor, but they need a convenient place at which to deposit their drainings. We are in the process of setting up used oil collection centers at which do-it-yourselfers can deposit their used oil. This oil will then be picked up by reputable used oil collectors to be reprocessed and prepared for use once again.

Would you consider extending your service by establishing a collection center for our project? You would be assisting many people who are now disposing of their drained oil in ways that harm our environment and waste a valuable energy resource. The used oil brought to the collection center would be yours to sell. While rendering a significant service, you would also be playing an important role in a community project that benefits you, the car owner, and the nation.

It is our belief that such a program can and will be successful if we work at it TOGETHER. Sponsors of the program include (names).

We hope that you will join us and will place a "Recycle Used Oil Here" sign at your station.

Please let us know at your earliest convenience if we can count on you. Write us at the following address:_____ or call _____ (phone).

Thank you for giving the program your consideration.

Sincerely,

(Name)
(Title)
(Organization)

Sample Letter to Encourage Participation

(Date)

(Name)
(Address)

Dear _____

Can we count on you to help our program to recover a potential source of energy, while at the same time eliminating an environmental hazard?

We are in the process of establishing a public service used oil recycling program that we feel would benefit our community and the nation. We would appreciate your advice and assistance in its development.

Used oil is a neglected but valuable energy resource. It can be recycled and put back to work as a lubricant or fuel. If used oil is not recycled and is discarded improperly, it can present a serious hazard to our environment. Throughout our community and nation, used oil is being wasted in surprisingly large amounts. (The Environmental Protection Agency and the Department of Energy estimate that the amount of oil mishandled annually in the U.S. by do-it-yourselfers exceeds 180 million gallons.)

Part of the reason for this waste is that automobile owners who change their own oil do not have proper disposal facilities for their drainings. As a result, used oil ends up in garbage or trash cans, storm sewers, or vacant lots. Eventually, it reaches and pollutes our streams and rivers. A combined effort to end this pollution by saving and re-using oil, thus conserving energy, will benefit all.

Our theme: PROTECT OUR ENVIRONMENT-CONSERVE ENERGY RESOURCES

Our slogan: RECYCLE USED OIL

A key feature of our program will be the establishment of a network of convenient used oil collection centers in our community. We hope to enlist the voluntary participation of civic-minded service station managers and business persons who are equipped and would be willing to handle used oil. Collection facilities might also be set up on public properties such as municipal garages, fire stations, or the area landfill or transfer station. Each collection point can be identified by a sign or poster. The discarded oil can then be sold to a recycler, who will ultimately reprocess it and prepare it for future marketing.

We will publicize the program and the collection centers through literature (brochures, etc.) and the media.

Your interest in, and active support of, our endeavor can help to make this much-needed public service a success. We would welcome your endorsement of our effort. Would you, or someone you designate, meet with us to share additional ideas and discuss approaches aimed at creating an effective program?

We welcome a response at your earliest convenience. You may callus at (phone) or write us at the following address: (list). Thank you for giving the program your consideration.

Sincerely,

(Name)
(Title)
(Organization)

Sample Kickoff Press Release

FROM: **DATE:**

FOR RELEASE ON:_____

USED OIL RECYCLING PROGRAM
BEGINS IN (COMMUNITY, CITY, STATE)

(Date) marks the kickoff of (community) used oil recycling program.

"We only wish that every community in the nation could be kicking off its own recycling program today also," said (Name, Title) of (Organization).

The program, initiated on (date) by (identify and give desired specifics), will be the first effort of its kind staged in (community). "The objectives are many. Of utmost importance will be our desire to impress upon the do-it-yourself oil changers of (community) the importance of keeping their oil drainings out of storm drains, garbage and trash receptacles, empty lots and the ground water," said (name). (Name) also cited the need to educate new do-it-yourselfers about how to collect and recycle oil in an environmentally sound manner.

(Community's) desire to aid in doing its share to combat the harm done to the environment by improper disposal was yet another reason. Last, but by far not least, (name) said "we want to take a giant step for energy conservation through re-use of this valuable energy resource."

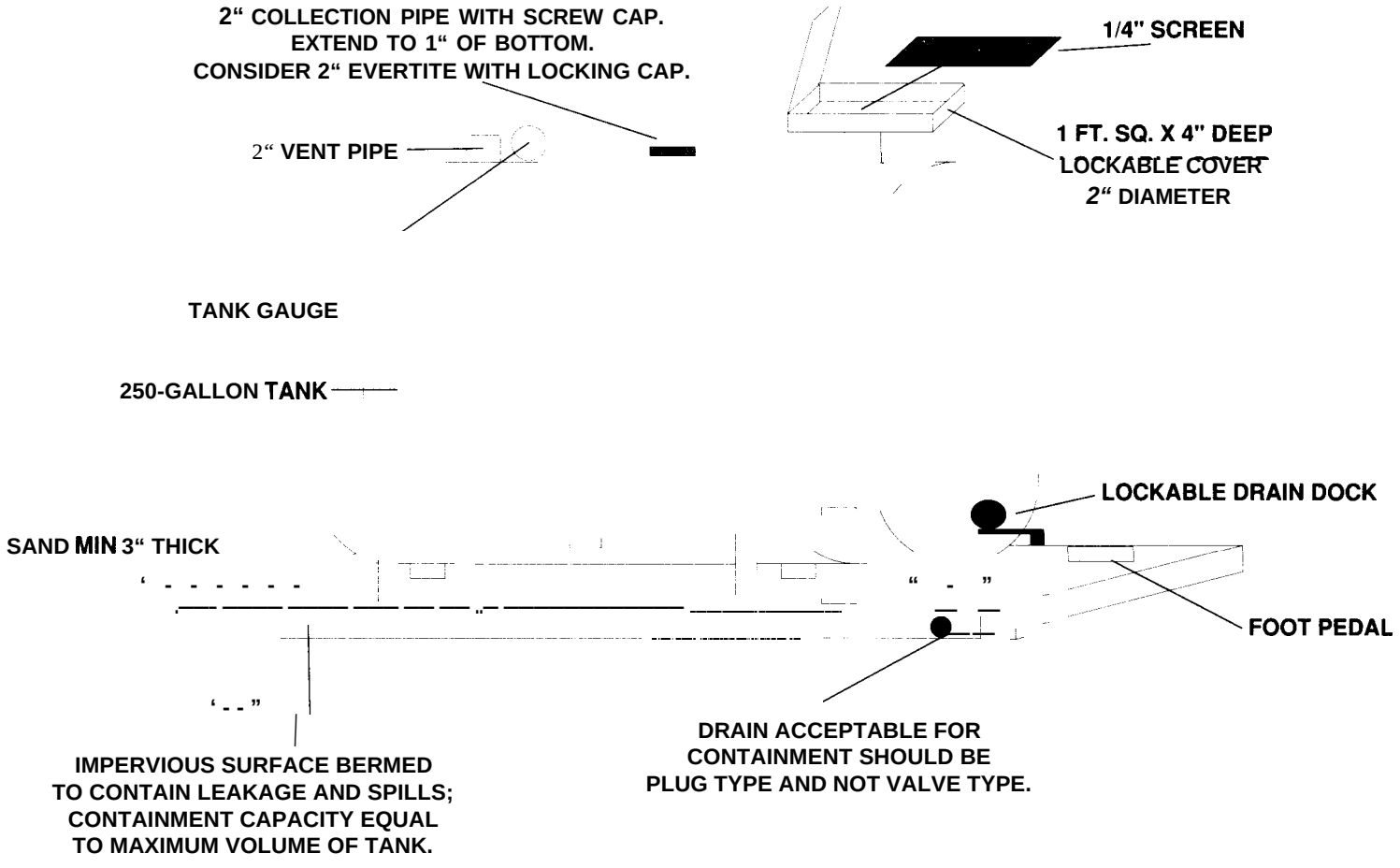
The U.S. Environmental Protection Agency and the Department of Energy estimate that in excess of 180 million gallons of used oil are mishandled annually by do-it- yourselfers.

The (community) program has established a network of collection centers for used oil. Service stations (and any other establishments participating) have agreed to serve as used oil collection centers. One of the incentives is that the collection centers will be able to sell the used oil to recycling conglomerates and use the proceeds as they wish (use statement only if applicable). The collection points will be identified by posters and their locations will be publicized areawide. (Name) said, "For our residents, the rest is easy. All they need is a suitable container and a cooperative frame of mind." (Organization) will have brochures, pamphlets and other informational materials to place in circulation. The (organization) has received endorsements from a number of (civic groups, organizations, etc.) and officials in the area, including: (list)

(Name of person) anticipates excellent cooperation and participation on the part of collectors and community residents. Anyone interested in obtaining more information or helping with this campaign should contact (name) at (address) or call (phone number).

Appendix D

SAMPLE OIL COLLECTION TANK DESIGN



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