FUTURE USES FOR SALVAGED GLASS

The following article was featured in the May issue of "Florida Wildlife" and because it is pertinent to the Western Australian scene, is reprinted in full with acknowledgement to the Florida Game and Fresh Water Fish Commission.

"Old bottles salvaged from refuse will be used in the years to come to pave streets, build and insulate homes and to make new bottles.

This forecast was included in testimony in Washington, D.C., by Richard L. Cheney, executive director, Glass Container Manufacturers Institute, before the Subcommittee on Air and Water Pollution of the Senate Committee on Public Works. The Subcommittee is conducting hearings on the Resource Recovery Act and the National Material Policy Act.

Mr. Cheney told Subcommittee members that the glass container industry has concluded that there are "more potential uses for waste container glass than there is glass available from refuse now or in the predictable future."

GCMI and its member companies are currently exploring the means and economics of establishing pilot glass retrieval programs in one or more urban areas, he added.

He said that GCMI is sponsoring research to develop mechanical means of separating bottles and jars from refuse and then sorting it by colour for re-cycling it back into the bottle making process. He added that as much as 30 per cent. of the raw materials for manufacturing new bottles could consist of salvaged glass.

Mr. Cheney said that GCMI has cooperated with the U.S. Bureau of Mines "on its successful development of the means of magnetically separating the glass and metal fractions from incinerator residue. The Bureau also has developed the technology for converting the salvaged glass into building bricks and glass wool insulation. With color sorting and automatic removal of contaminants, which appear to be feasible, this glass could also be used as cullet to make new bottles."

An even larger potential exists in the use of crushed waste glass as aggregate in glasphalt, a product being developed by the University of Missouri, at Rolla, Missouri, in which crushed glass substitutes for crushed limestone in asphalt for paving streets, Mr. Cheney said. He added that estimates indicate that the need for aggregate in most cities would far exceed the available glass.

"The ultimate solution, of course, should be the separation of all the components out of waste and returning them for re-use to their respective industries—such as paper back to paper mills, aluminum back to smelters, and scrap iron back to foundries," Mr. Cheney said.

"We believe that conservation of raw materials demand salvage and that the long-range, efficient management of waste calls for re-use," he continued.

"We also are convinced that salvage will automatically reduce air, land, and water pollution . . . We strongly feel that burying and burning should in the long run be eliminated as primary methods of disposal . . . "

He pointed out that glass at present accounts for only 6 per cent., by weight, of municipal refuse and that all packaging materials account for about 13 per cent. of residential, commercial and industrial waste.

Currently prevalent methods of collection and disposal "cannot possibly cope with the great diversity of packaging materials that have been developed to respond to the requirements of modern society," Mr. Cheney said. "The scientifically-oriented packaging industry, producing some $17 billion worth of goods a year, should not be required to revert to outmoded packaging systems to accommodate outdated waste disposal methods. We think, rather, that waste disposal systems should join the ranks of the technologically progressive."

He said that the lag in development of modern waste disposal systems was not the fault of public works officials, "but is largely due to insufficient funds, the major changes in our living habits since World War II and the burgeoning population in our urban areas. Unfortunately, the funds which have heretofore been committed to waste disposal have, in most instances, been sufficient only to deal with collection activities.

"Furthermore, the character of refuse has changed radically with the changes in our mode of life. Not so many years ago, solid waste consisted principally of food waste and ashes from coal burning furnaces. Today, these items are a minor factor, having been displaced by a vast quantity of paper, packages, discarded appliances and the like".