

SENATOR PAUL TSONGAS
CONNECTICUT RIVER CONFERENCE
JUNE 22, 1979

THIS CONFERENCE AND THE STATEWIDE RIVERS CELEBRATION THIS WEEKEND WILL INCREASE AWARENESS OF OUR WATER RESOURCES, WHICH ARE ON THE REBOUND. THE EVENTS WILL ENCOURAGE SUSTAINED EFFORTS TO GUARANTEE THE FUTURE USEFULNESS OF MASSACHUSETTS WATERWAYS AND WATER SUPPLIES.

THE CONNECTICUT RIVER HAS BEEN IMPORTANT TO DEVELOPMENT IN THE CONNECTICUT VALLEY. YET CITIES GROWING BY THE RIVER SOMETIMES HAVE BEEN BLIND TO ITS VALUE. SPRINGFIELD IS A TYPICAL EXAMPLE. RAILROAD TRACKS AND INTERSTATE 91 CUT DOWNTOWN SPRINGFIELD OFF FROM THE RIVER -- THE CITY'S GREATEST NATURAL RESOURCE.

BUT NOW WE ARE OPENING OUR EYES TO THE WAY THE RIVER HAS BEEN UNDERESTIMATED. TODAY I'M PROUD TO ANNOUNCE A \$20,000 RIVERFRONT PLANNING GRANT TO THE CITY OF SPRINGFIELD BY THE NATIONAL ENDOWMENT FOR THE ARTS. THE GRANT MATCHES LOCAL CONTRIBUTIONS THAT ALREADY EXCEED THREE TIMES THE GRANT AMOUNT. THIS KIND OF LOCAL INITIATIVE IS VERY IMPORTANT, AND I CONGRATULATE EVERYONE FROM THE SPRINGFIELD AREA WHO HAS PARTICIPATED IN IT.

THE RIVERFRONT PLAN IN SPRINGFIELD IS PRIMARILY A COMMUNITY-FUNDED EFFORT. IT'S APPROPRIATE THAT A COMMUNITY POOL ITS RESOURCES TO FUND A PROJECT INVOLVING THE RIVER. THAT IS BECAUSE OUR WATERWAYS ARE HELD IN COMMON BY ALL CITIZENS: THEY BELONG TO EVERYONE. IN THE CASE OF THE CONNECTICUT RIVER, FOUR STATES SHARE IN ITS FATE -- VERMONT, NEW HAMPSHIRE, CONNECTICUT AND MASSACHUSETTS. THE RESPONSIBILITY AND BENEFITS OF ITS PROPER CARE ARE SHARED UPSTREAM AND DOWN, AS ARE THE CONSEQUENCES OF ABUSE. WE ALSO SHARE OUR RIVER RIGHTS WITH FUTURE GENERATIONS.

THE CONNECTICUT RIVER AND ITS TRIBUTARIES MEET MULTIPLE NEEDS, WHICH MUST BE BALANCED. THEY SUPPLY WATER, GENERATE ELECTRICITY, AND PROVIDE A BEAUTIFUL SETTING FOR RECREATION. OUR NEWLY-REALIZED AGE OF LIMITS REQUIRES US TO RE-EXAMINE THE DEMANDS ON OUR WATER RESOURCES. IN THE PAST, WE HANDLED OUR WATER NEEDS BY INCREASING THE SUPPLY. IN THE PAST, WE MET OUR ENERGY DEMANDS BY FINDING MORE. NOW OUR EMPHASIS MUST BE TO MANAGE WHAT WE HAVE BETTER.

THIS EVENING I WILL TALK ABOUT MANAGING THE RIVER SYSTEM IN A TIME OF RESOURCE LIMITS. I WILL DISCUSS THE PROPOSED DIVERSION OF CONNECTICUT RIVER WATER TO THE BOSTON AREA. THEN I WILL SHARE SOME THOUGHTS ON HYDROELECTRIC POWER, AND BRIEFLY GIVE MY PERSPECTIVE ON FLOOD ZONE MANAGEMENT. I WILL CONCLUDE WITH SOME THOUGHTS ON WATER

AND OTHER PRECIOUS RESOURCES IN GENERAL, AND ON A DEVELOPMENT TO COORDINATE AND IMPROVE PLANNING FOR MASSACHUSETTS RIVERS.

DIVERSION

THE PROPOSED DIVERSION OF CONNECTICUT RIVER WATER TO THE QUABBIN RESERVOIR TO SUPPLEMENT THE METROPOLITAN DISTRICT COMMISSION'S WATER NEEDS IN THE BOSTON AREA IS NOT NOW JUSTIFIED. THERE ARE MANY UNANSWERED QUESTIONS ABOUT THE EFFECT OF DIVERSION ON THE DELICATE ECOLOGICAL BALANCE OF THE CONNECTICUT RIVER VALLEY. EXPLORATION AND DEVELOPMENT OF COMMUNITY GROUND WATER RESOURCES AROUND THE STATE HAS BEEN INADEQUATE, ALTHOUGH MASSACHUSETTS IS STARTING TO MOVE ON THIS NOW.

THE MDC MUST MANAGE ITS PRESENT WATER SUPPLY BETTER BEFORE ANY DIVERSION CAN BE CONSIDERED. MDC CAN'T ACCOUNT FOR AN ESTIMATED 50 MILLION GALLONS OF WATER PER DAY. LEAK DETECTION IN THE AGED MDC SUPPLY SYSTEM IS INADEQUATE. MORE COMPREHENSIVE EFFORTS AT LEAK DETECTION ARE NEEDED URGENTLY. STATE LEGISLATION IS PENDING THAT WOULD ALLOW THE MDC TO DO THIS.

EARLY DETECTION SAVES WATER, OF COURSE, BUT IT ALSO IS EXTREMELY COST-EFFECTIVE. BETWEEN 1975 AND 1977, THE BOSTON SUBURB OF ARLINGTON -- A MEMBER OF THE MDC SYSTEM -- SPENT \$11,000 ON DETECTION. IT SAVED \$112,000 A YEAR -- A TENFOLD RETURN ON INVESTMENT. IN 1978, SUBURBAN MALDEN SPENT \$13,500, AND FOUND 66 LEAKS. IT IS SAVING OVER \$110,000 THIS YEAR.

THERE IS ANOTHER BASIC WAY THAT MDC CAN IMPROVE ITS OPERATION AND SAVE WATER. THE PINE PLANTATIONS AT THE QUABBIN RESERVOIR WASTE AN ESTIMATED 16 MILLION GALLONS OF WATER A DAY, ACCORDING TO AN EXPERT'S RECENT STUDY. THIS IS THE AMOUNT OF WATER THAT THE PINES ABSORB AND RETURN TO THE ATMOSPHERE -- WHICH WOULD OTHERWISE ENTER THE WATER TABLE AND ADD TO THE RESERVOIR. 16 MILLION GALLONS PER DAY IS NEARLY THE AMOUNT BY WHICH PRODUCTION FROM QUABBIN EXCEEDS THE "SAFE YIELD." AND SO, REDUCING THE PINE DENSITY AT THE RESERVOIR WOULD PUT THE SAFE LEVEL OF SUPPLY MUCH CLOSER TO WHAT IS NOW PRODUCED THERE.

THE OTHER INGREDIENT MISSING FROM THE MIX IS A COMPREHENSIVE, STEADY EFFORT TO EDUCATE THE PUBLIC ON CONSERVATION. PART OF WATER CONSERVATION IS MECHANICAL, SUCH AS SPECIAL SHOWER HEADS AND TOILET TANKS. PART IS ATTITUDINAL -- LITTLE THINGS LIKE NOT LETTING THE WATER RUN WHILE YOU BRUSH YOUR TEETH.

MDC IMPROVEMENTS IN THE AREAS I HAVE DESCRIBED WOULD MAKE DIVERSION UNNECESSARY.

THE COVETED WATER OF THE CONNECTICUT RIVER RUNS PAST THE GREENS OF HANOVER INTO THE BLUE PAST NEW HAVEN. AS A MATTER OF COURSE, IT GENERATES ELECTRICITY. BUT THERE IS ROOM FOR SIGNIFICANT EXPANSION OF THE RIVER'S HYDROELECTRIC POWER BY RETROFITTING PRESENT DAM SITES.

THE MASSACHUSETTS ENERGY OFFICE HAS TAKEN, AND IS TAKING, AN INVENTORY OF DAM SITES WITH A POTENTIAL OF 50 KILOWATTS OR GREATER. THERE ARE 119 SUCH UNUSED SITES. THE UNTAPPED ENERGY POTENTIAL AT EXISTING DAMS ON THE CONNECTICUT RIVER TOTALS 36 MEGAWATTS. ON THE WESTFIELD AND DEERFIELD RIVERS, ANOTHER 23 MEGAWATTS OF ENERGY PASSES BY DAMS.

USING THIS WASTED HYDROELECTRIC POWER WOULD SAVE US 300,000 BARRELS OF OIL A YEAR. (STATEWIDE, THE ESTIMATE IS 1 MILLION BARRELS OF OIL SAVED PER YEAR.) THE NEW ENGLAND RIVER BASINS COMMISSION WILL REPORT ON THE COST FACTORS IN JULY.

NEW ENGLAND IS THE BEST EXAMPLE IN THE COUNTRY OF A REGION WITH THE RESOURCES AND INCENTIVES TO DEVELOP HYDROELECTRIC POWER. THERE ARE THOUSANDS OF UNUSED DAMS. SINCE NEW ENGLAND HAS THE HIGHEST ENERGY COSTS OF ANY REGION IN THE COUNTRY, WE HAVE THE GREATEST ECONOMIC INCENTIVE TO ACCELERATE RESTORATION OF HYDROELECTRIC SYSTEMS.

SMALL-SCALE HYDROELECTRICITY IS AN ENERGY SOURCE WHOSE TIME CAME . . . WENT . . . AND HAS COME AGAIN. IT WAS CENTRAL TO THE EARLY PLANS OF HOLYOKE AS AN INDUSTRIAL CITY. AT THE TURN OF THE CENTURY, THERE WERE OVER 9,000 HYDROPOWER DAMS OPERATING THROUGHOUT NEW ENGLAND. NOW THERE ARE ABOUT 300 -- MOST OF THEM IN NEW HAMPSHIRE AND VERMONT.

THE FORCE OF FALLING WATER HAS RISEN AGAIN, THANKS TO THE OIL CARTEL AND THE FINITE NATURE OF FOSSIL FUELS. NOW WE HAVE A WATERFALL "WINDFALL" IN OUR BACKYARD THAT CAN HELP PROTECT THE VALLEY FROM ENERGY SHORTAGES. SMALL-SCALE HYDRO IS A BEAUTIFUL SOURCE OF ENERGY. IT'S A MEDICINE FOR OUR ENERGY DEFICIENCY THAT HAS NO POISONOUS SIDE-EFFECTS.

FLOOD REMEDIES

THE RIVER'S LITERAL RISE AND FALL AT FLOOD TIMES IS A COSTLY BUSINESS. HERE IN THE CONNECTICUT RIVER-VALLEY, THE FEDERAL GOVERNMENT HAS INVESTED OVER \$300 MILLION IN A STRUCTURAL SYSTEM OF FLOOD CONTROL. BUT FLOODS STILL CAUSE NEARLY \$15 MILLION IN ECONOMIC DAMAGES EACH YEAR IN THE CONNECTICUT VALLEY.