**SUBJECT:** Evaluation of RF 69056 ($200,000 to Williams College for establishment of their Center for Environmental Studies

In 1969, prior to the formal establishment of the Quality of the Environment program and prior to the formation of the Natural and Environmental Sciences division, an appropriation of $200,000 was made to Williams College in addition to a 1967 appropriation of $75,000 in support of the College’s Center for Environmental Studies. Evaluation of this grant is based on a staff site visit in July of 1973 (see GHT diary of July 2, 1973 and CW diary of July 2, 1973 - attached) and on review of annual and final reports submitted by the College.

The Center for Environmental Studies at Williams College has become a valuable and continuing component of this small liberal arts college. They have been provided with new facilities. The college has recruited a highly competent new director for the Center, and the college administration has given the Center a direct voice in all matters on campus related to environmental education. This includes participation in the recruitment and selection of new faculty whose teaching responsibilities could be related to environmental concerns. The number of students choosing to become associated with the Center has remained significant, and this in part has led to the administration’s strong support of the Center. These students are from a variety of disciplinary backgrounds. Most attend graduate school upon graduation and pursue graduate studies in some way related to environmental concerns.

The Center has also been able to attract support from other sources, and it is the opinion of its director that the necessary non-university funding ($40,000 per year) will be available for continuation of the Center’s work. All reports prepared by the Center seem to be exceptionally well done based on the qualifications of those who prepare them.

Overall, I believe the program is about as good as can be expected for a totally undergraduate campus.
INTERVIEWS: GHT

CW and GHT visited Williams College to review progress under appropriation RF 69056 ($200,000) for establishment of a Center for Environmental Studies. We were met in the morning by Mr. Thomas C. Jorling, who became director of the Center on July 1, 1972. Mr. Jorling, a lawyer, was formerly employed as minority counselor to the United States Senate Committee on Public Works and has been intimately involved in drafting a federal legislation on air and water pollution control. According to Jorling, the previous director of the Center, Dr. Andrew Scheffey left Williams because the administration did not act on several of his recommendations. However, after his departure nearly all of these recommendations were incorporated prior to Jorling taking the directorship at the Center. Jorling now participates in the selection of faculty members for departmental appointments if there is a relation to environmental studies and is himself a faculty member in full standing but without any departmental affiliation. The Center will be moving into new facilities this fall which consist of a large home owned by the university. It will be totally devoted to the Center. There are several offices available, a large conference room, and another large room and garage which will be used to house the Center's library.

In 1969, Williams began to admit women students thereby increasing their total enrollment from 1,200 to 1,800 students. This has required the addition of new faculty and the Center has had influence in selecting new faculty members with environmental interest. It is Jorling's feeling now that the Center will remain an independent unit on campus not directly affiliated with any department or division. It will also not seek to become a department itself nor will it seek to offer an independent major. At present, students selecting the environmental program have a major within one of the traditional departments and take the required environmental courses as electives. Although there was initially some reluctance on the part of departments to cooperate with the Center, this has now been corrected and Jorling feels he has excellent linkages with all departments on campus. This is, in part, due to the Center's public statement that it does not seek to become a department; the awareness by department chairman that the Center can offer services such as guest lecturers and conference sponsorship which are not available to them; and the high degree of interest shown by students in the Center's activities. In this latter-regard, it is of interest that departments now seek to offer environmentally related courses which are accepted by the Center as part of their program because such courses attract large numbers of students and the percentage of funding awarded to a department depends in part on the number of students it teaches. Jorling feels that the program as it now exists at Williams concentrates primarily on catalytic activities and hence will always require some outside support of a nature not available to traditional departments; hence, one of his responsibilities will be to obtain funding for the Center at approximately $40,000 per year.

We also discussed with Mr. Michael Shay the outreach programs of the Center. Shay an English major who previously taught at the University of Connecticut and served as town environmentalist to Williamstown is now full-time coordinated for outreach activities of the Center. His salary comes from the RF grant. Nearly all of the activities of the Center are opened to the public. This includes guest lectures,
seminars, some research projects, and the regularly scheduled Friday Luncheon discussion. Some of the students and faculty have undertaken research projects in collaboration with local agencies, for example, the attached "Study of the Use of Road Salting in Williamstown" was undertaken by students under the direction of biology professors, Henry Ark and Mr. Shay in collaboration with the town government. The town plans to implement many of the recommendations presented in the report. In addition, the Arthur D. Little, Consulting Firm; which is looking into this problem for the state of Massachusetts, requested and plans to use the Center's report in their analysis. The Center also assisted the counties of Berkshire and Bennington in developing a solid waste recovery center which Jorling indicated was one of the best in the country. The Center also functions in a public information role and has been active in encouraging cleanup of the Hoosac River. The Hoosac is a subsidiary of the Hudson and hence the Williamstown area is part of the Hudson Basin.

The natural science research activities of the Center are concentrated on the Hopkins Memorial Forest. We visited this track of about 1,600 acres located in the northwest corner of Williamstown. In the mid 1800's this land was largely farmed and hence cleared of forest. Excellent records are available indicating the land use during the late 1800's. In 1910 the track was acquired by Colonel Hopkins. He and later his wife continued to farm it until 1934 at which time it was given to Williams College. In 1935, the college deeded the Hopkins' forest to the U. S. Forest Service as an experimental research facility. The forest service conducted research concerning forest ecology, meterology, hydrology, and tree genetics until 1968 when all government research activities in the north were consolidated at Durham, New Hampshire. Ownership of the Hopkins' Forest reverted to the college. All data collected by the forest service has been made available to the college primarily at the initiative of Professor Henry Art, Assistant Professor of Biology and Assistant Director of the Center in charge of research. The entire forest has been made available to the Center for environmental studies, education, and research. This research has included vegetation surveys, comparing present vegetation with that recorded by the forest service, investigations of the soil and plant nutrient relationships within the forest, hydrological studies on one of the three brooks located in the forest, and routine collection of meteorological data. The Center hopes to use the forest and the extensive data available to gain insight into the capability of cleared land to be reforested. Support has been requested from NSF for support of this research. In addition, other universities such as Yale and Cornell plan to undertake studies involving the tree genetic research started at the forest by the Forest Service. The attached paper describes the forest and some of the research activities.

For lunch we met with Dr. Joseph A. Kershaw, Provost of Williams. Dr. Kershaw indicated his pleasure with the activities of the Center and with Jorling as its director. He felt that the Center had established itself on campus and with a small amount of outside report would remain a permanent entity. The new President of Williams was Dean of the Faculty when the Center was initiated, and he as well as Provost Kershaw are strong supporters of the Center. He pointed out, however, that Jorling and the Center are able to hold their own in all respects and no favoritism is required for them on the part of the Central Administration. Kershaw was particularly pleased with the wide distribution of students and faculty participating in the Center. In May, 1972, 22 seniors graduated from the Center's program, no more than four of these were from anyone department and 12 departments were represented. Of the 22 seniors approximately 1/3 when on to graduate school, 1/3 to business school, and 1/3 to law school.
CW and GHT visited Williams College to review the work of the Center which, in 1969, received a five-year development grant of $200,000 to run through the year 1973-74. A previous planning grant of $75,000 was awarded in 1967.

We spent a full day with Thomas C. Jorling (TCJ), who has been Director for a year. He impressed me as very competent and well-qualified for the role he is expected to play at Williams as Director and as a resource in regional environmental affairs. Michael Shay, Assistant to the Center and formerly Town Environmentalist for Williamstown described some student projects including a road salting impact project conducted by a group of students under his direction. He is the successor to John Gagnon who had been Regional Resource Specialist at the Center. He impressed me as enthusiastic, knowledgeable, and practical, seeking student involvement without particular regard for the relative priorities among projects in terms of their educational or research value. Henry Art, Assistant Professor of Biology, showed us the Center's Hopkins Forest and the laboratory used for sample analysis connected with the salting and other student projects. I had little opportunity to ascertain the depth of Art's knowledge, but he too impressed me as enthusiastic about botany and the natural sciences generally and yet not especially clear about the differences between science studies and environmental studies. Joseph A. Kershaw, Provost of the College and Lehman Professor of Economics had lunch with TCJ, Art and ourselves. He is open, astute, realistic, and constructive. Several days after our visit it was announced that he will be succeeded in the spring of 1974 by Stephen R. Lewis, also a professor of economics.

The College was not in session and we did not meet other faculty, Center staff, or students.

The principal reason for the visit was to collect information and firsthand impressions necessary for an evaluation of the effectiveness of the RF grants, and to ascertain the likely prospects for projects of relevant interest to RF's work in regional environmental approaches, including the Hudson Basin Project (The Hoosic River running through North Berkshire is a tributary of the Hudson). Also, Neil Peterson, Vice President of the
The Center also has, to a certain degree, served as a model for environmental programs at other schools. According to Jorling, they have received numerous requests for information about their Center from throughout the country. In addition, Dr. Scheffey is now at the University of Massachusetts and developing a somewhat similar program and a Dr. Reidel, previously of Williams is now director of an environmental program at the University of Vermont which is based on the Williams model. There is close contact between these schools and they share guest lecturers and to a certain degree library facilities. In addition, these schools plus several others in New England have met and are presently in the process of drafting a proposal for coordination of environmental programs throughout the New England region.

COMMENT: I was quite pleased with the program we saw at Williams. The Center seems to be well established as a permanent entity on campus, and Jorling seems to be a highly competent and dedicated new director. Although we did not meet many other faculty members due to their absence from campus, those we did meet with, Michael Shay and Henry Art, also appeared quite competent. One of the strongest points of the Center would be the high degree of student interest shown in its activities. Although one might question the results on a dollar per student basis, I believe the program is about as good as could be expected on an undergraduate campus.
INTERVIEWS:  
(continued)

Edna McConnell Clark Foundation had inquired about the prospects for RF support of Center research projects that would parallel that Foundation's interest in Berkshire county efforts designed to improve the interactions between town, county, state and Federal governmental planning and management.

Reorganization and Reorientation: The position of the Center within the College has improved over the past several years. TCJ alone and later with Provost Kershaw and Art discussed the history of the Center fully and frankly. They emphasized that the basic principle of Center autonomy without isolation was established during this period. Specifically, (1) The Director as such now has faculty standing and is chairman of the faculty committee which oversees the Center and makes recommendations to the central administration; (a year from now TCJ will be considered for tenure.), (2) The "coordinate major" concept has proved attractive and is taken into account in budgeting faculty time, with the Director having a say in allocating this portion of the general budget. (3) The newly renovated permanent home for the Center will enable it to develop its identity and perform its catalytic and information functions more effectively. (4) The Center has responsibility for a laboratory useful for chemical analysis and for the Hopkins Forest, to be used for educational and research purposes. (The tract of about 1600 acres was a U.S. Forest Service research station for 33 years before reverting to the college in 1968.)

At the time of the RF grant in 1969, the Center's orientation had shifted from action, research and education on regional environmental problems in that order of import to education, research, and action in that order, but the institutional implications of that shift were not yet accommodated. Following the College's highly successful special training Center for Development Economics, the original plan was to draw on the faculty as a resource, with the Center and its projects regarded as an adjunct of the College rather than an integral part of it, serving student and faculty interests directly in so far as these related to environmental problems and needs. Apparently, this encountering faculty and civic resistance. As new recast, the Center is a unit in the College which provides: (1) an academic program which related to many disciplines; (2) a physical center which brings together students and faculty from different disciplines; as well as non-college participants; (3) a documentation center; and (4) a basis from which to engage in studies of real problems involving forest, town, or county environment problems. No other College unit has these characteristics.

This shift towards an autonomous, catalytic unit and its legitimation emerged in the course of a faculty search committee's efforts to find a succession to the first Director, Andrew Scheffey Jr. The persons we met agreed that this "agonizing reappraisal" was essential in order to dispel suspicions of administration imposition and to develop genuine faculty interest and support. The fact that the Center survived the process and was not dismembered, captured by any one department, nor isolated appears to have given it increased standing within the College.
The RF grant was the major source of external support; undoubtedly the commitment associated with them was an important consideration in the efforts to make the Center viable.

The Center now appears to have developed organizationally into a viable and integral part of the College. It is still more dependent on active encouragement by Central Administration than on a typical department and uncertainties about part of its base funding (discussed below) will demand special efforts. Otherwise, with permanent housing, the principle of tenured director, and students interested in its programs, the Center may be virtually as secure as a department and yet retain the flexibility and future problem orientation which it must have. According to Kershaw, the incoming President, John W. Chandler favored the Center when he was Dean of Faculty at Williams prior to becoming President of Hamilton College.

**Program Direction:** The Director is now the key factor in the Center's effectiveness. TCJ's interest in the biology and social sciences, his experience on a Congressional staff, his personality, his perception of the Center's distinctive strengths and purposes within an undergraduate institution, and his desire to relate the Center to other centers in New England with comparable interests all indicate that the prospects for the Center's playing a significant role inside and outside the College are excellent.

His special interests in environmental legislation and regulation also enhance the possibility that he will combine College responsibilities with research and other, now more subordinate, activities directly relevant to regional or even national environmental affairs.

A possibly contrary tendency to watch will be expansion of educational and research interests oriented towards the use of Hopkins Forest for biological research and nature studies. In 1969 it was expected that the Center would use Mt. Hope Farm as a laboratory for many types of environmental research and conferences. Because of the change in orientation and costs, this did not happen. The Forest may provide some extraordinary research opportunities exploiting the results of genetic crossings and succession studies started by the U.S. Forest Service and now ready to be completed. RF funds have helped start the Forest program. Yale School of Forestry and Environmental Studies is exploring research opportunities. Such work could be very valuable, but the primary needs of the undergraduates or of the region might also become subordinate to it. While Henry Art combines an interest in botanical research with education for non-specialists, I had the sense that while he was primarily more interested in using the Hopkins Forest for these purposes, no special effort was being made as yet to figure out which uses might relate most directly to future forested and other land use problems.

**Funding:** The Center's financial picture is good. It has assured space, salaries for core staff, a place in the educational budget and in the library system. It can acquire funds for particular research projects and facilities (e.g. in connection with the Hopkins Forest and the
INTERVIEWS:
(continued)

laboratory—a beneficiary of an R.K. Mellon grant.) The softest spot—and the one which the RF grant now helps to fill—is funding of catalytic activities such as visiting experts, meetings, and publications. TCJ estimates that ideally this might cost $40,000 – $50,000 per year. Some general funds are available for such purposes but the amount is limited and must be shared. And yet, such funds may be more essential to the Center than to a department. There is already evidence of alumnus giving earmarked for the Center ($5,000 last year).

From the viewpoint of the College administration, the basic measure of the Center's success and its claims on the College budget will now be its ability to attract students into its programs. This year about 22 seniors out of a graduating class of about 350 completed the coordinate major in environmental studies. Kershaw regards this as an average and very respectable number in comparison with enrollments in different majors, and the quality of the students was above average.

Curriculum: While most of the students in environmental studies also majored in economics, biology or chemistry, a total of 10-12 majors were represented in this year's class. The hoped for patterns of multi-disciplinary faculty cooperation appear to be taking hold.

I was impressed by TCJ's arguments for a coordinate, rather than full, major. It makes more demands on the student, but good students are attracted. There is a good mix of majors and variety in the students' professional career plans. Established departments welcomed the non-competitiveness of the arrangement.

TCJ's basic argument for an undergraduate program is that most students at Williams pursue professional careers and have a high probability of assuming leadership positions so their environmental awareness may have an impact in different fields but the program is too young to be sure of this. While environmental studies appear in any case to be an effective vehicle for increased scientific understanding of environmental problems this would hardly satisfy creations of the Center.

We did not have an opportunity to examine the syllabus for the key course in the program of the full document collection—the latter was in temporary storage, but indications are that both are well-conceived and that as a group the core staff is aware of the problems, as well as the opportunities, involved in defining and shaping environmental studies. I was assured that experience was leading to progress in this area but I was unable to explore what this meant. In any event, the initial concept of a definable hinterland and urban influences on its environment has not, as yet, served as the expected focus for studies, perhaps because of the Center's realignment away from action initiatives with respect to this regional problem.
INTERVIEWS:
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Student field projects are an important part of the curriculum. We were briefed about those related to road salting, solid waste management and the history of local land use. TCJ, Shay and Art stressed the point that the students were learning natural and social science research techniques which they might not otherwise be exposed to and that in many cases the work could also be put to some use in local environmental planning or problem-solving.

While there was some evidence that this program of field work may be an expensive (in student time) and uncontrolled educational process, the seriousness of the students should provide a built-in self-correcting factor. I wish there had been an opportunity to talk with students.

Outreach: Shay has identified for students those problem areas that are also likely to be amenable to study by them. The results of the projects having to do with road salting and solid waste disposal are being put to use in the local area. It was not evident that student work was contributing to the important current debates on sewage treatment facilities, although TCJ is being cited in the local press as an authoritative resource on this subject.

The focus on environmental problems inherent to the town or even the county and their selection for educational purposes has meant that the larger region as it is impacted by the growing demands of metropolitan New York and Boston has not received the attention originally expected. (Discussion brought out the fact that the principle external influences are from the direction of New York. The Berkshires are New York cultural territory. Boston has a smaller population and more space for recreation and second homes in open country nearer to Boston or along the extensive New England seashore.)

Despite this shift of emphasis, the Center could and, I believe, should encourage study of larger regional environments for educational, if not operational, purposes.

Inter-institutional cooperation: Possible cooperation among directors of environmental programs in New England institutions is being explored. TCJ mentioned a recent meeting attended by Carl Reidel, (University of Vermont); Herbert Zube, Hugh David, and Andrew Scheffey (all of the University of Mass.); as well as representatives of the Yale School of Forestry and Environmental Studies; the Harvard Forest, the University of New Hampshire, and the University of Maine. Dartmouth was supposed to be represented but was not. Perry Hagenstein of the New England Natural Resources Center (Boston) is preparing a report of this meeting. TCJ promised to keep us informed and indicated Hagenstein might wish to explore funding possibilities with RF. Neither GHT nor CW made any commitments about this, but I should think cooperation among the centers should be encouraged.
Henry Art is somewhat acquainted with the work of the regional field staff program funded by RF.

TCJ assured us that the expected role of the Center as a model has occurred. There have been many inquiries about the Center and serious efforts to pattern programs after it. Reidel was at Williams and draws upon his experience in designing a program for the University of Vermont.

**Evaluation:** In the full evaluation of the Center as a recipient of an RF grant it will be useful to distinguish: (a) the developmental aims, which have been met to a remarkable degree; and (b) the research aims, which have been pursued systematically while changes were taking place in personnel and the Center's orientation.

Evaluation in comparison with comparable programs in other colleges or Universities should, I believe, attempt to weight the advantages and disadvantages of preprofessional and professional education, given the present amorphous character of environmental studies and the importance of approaching them from different disciplines and points of view.

The Center at Williams with a person like TCJ in a key position also suggests that the more social and humanistic aspects of serious and relevant environmental research may be possible in a College atmosphere, whereas those aspects requiring major technical facilities or field experience may not be. As Williams seems to recognize, the mere fact that undergraduates (and perhaps even graduate students) are located in a region and are willing to engage in technical field work does not provide a particularly sound basis for undertaking environmental research requiring a great deal of data, technical skills, or analysis of complex technical-social systems.

C.W.