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June 16, 2015

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room IA
Washington, DC 20426

REF: Mountain Valley Pipeline (MVP);
Docket No. PF15-3-000

Dear Ms. Bose:

The following comments primarily address impacts from the construction and operation of the Mountain Valley pipeline on National Forest lands. The comments are submitted on behalf of Preserve Craig, Inc.

MVP Proposes Unprecedented Exploitation of Our National Forests

There is very little precedent for consideration of the impacts of the construction and operation of an interstate gas pipeline on National Forests, and none in the eastern U.S. The George Washington and Jefferson National Forests, which are managed as one administrative unit, are simultaneously considering not one, but two gas pipelines -- one pipeline in each of the two forest units. Both the Atlantic Coast Pipeline and the Mountain Valley Pipeline are in the pre-application process before the FERC. There also are two additional pipeline projects in development.

We are at an unprecedented juncture in the management of our treasured George Washington and Jefferson National Forests. Most fundamentally, may we permit our eastern National Forests to be carved-up by trails for the transportation of commodities owned by limited liability companies for extraordinary private profit? Trails that permanently prohibit all other uses of the land, fragment the forests, cause untold impacts to water resources and soil degradation, visually mar scenic and recreational values for many miles, introduce pathways for invasive species -- including off road vehicles, ATVs, and their careless occupants, and inflict terror on communities whose rural residents carve out land-based livelihoods in the valleys between the spectacular ridges that comprise the Jefferson National Forest in Craig County, Virginia and Monroe County, West Virginia. You read that correctly -- the rural residents whose lives will be forever changed by your decision, in ways that are not even fully known, speak of the construction and operation of a 42 inch gas pipeline as terrorizing to their ways of life.

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MVP will pursue from the Forest Service the acquisition of a special use permit for a right-of-way within which to construct and operate a gas pipeline on the Jefferson National Forest. Gas is being pumped from the earth at such rates in the United States that the corporations have made this country a gas exporter.

The public has raised significant questions in regard to the purported public benefit from the sought gas transmission pipes. Although the company has denied intent to export the gas to foreign countries, there are credible indications that MVP has been misrepresenting its intentions. A new member of MVP's joint venture specializes in gas exports, and has already committed to selling gas through the Cove Point LNG export terminal in Maryland.

On Wednesday, March 11, 2015, Mountain Valley Pipeline, LLC, a joint venture between affiliates of EQT Corporation and NextEra Energy, Inc. announced that a subsidiary of WGL Holdings, Inc., WGL Midstream, acquired a 7% ownership interest in the joint venture, and a subsidiary of Vega Energy Partners, Ltd., Vega Midstream MVP LLC, acquired a 3% interest.

WGL Midstream today announced the execution of a gas sale and purchase, and capacity agreement with GAIL Global (USA) LNG LLC (GGULL), a subsidiary of GAIL (India) Limited (GAIL), under which WGL Midstream has agreed to sell up to 430,000 Dth/day of natural gas, for a term of approximately 20 years, commencing on the in-service date of the Cove Point LNG export facility. WGL expects that the majority of the natural gas would be purchased by WGL Midstream through an existing arrangement with Antero Resources Corporation (Antero), a premier producer and the most active operator in the Marcellus and Utica Shale region.

<http://media.eqt.com/press-release/mountain-valley-pipeline-announces-wgl-midstream-partner-shipper-and-gas-purchaser>

Given that the public need is questionable and the impacts on public resources will be severe, alternatives to crossing the Jefferson National Forest must be thoroughly analyzed.

Preserve Craig asserts that American citizens' need for clean and adequate water supplies is paramount to the corporation's financial interest in exporting gas.

The mountain ridge geography of the Jefferson National Forest is the drinking water fountain for the residents of Craig and Monroe Counties, and all of the people who draw their

water supplies downstream from these headwaters. Indeed, the Jefferson National Forest was established for the purpose of watershed protection.

Each of our National Forests are unique, but the National Forests in eastern U.S. have their conception in common. Under the authority of the Weeks Act of 1911, the National Forest Reservation Commission purchased millions of acres of land to create our eastern National Forests. Included with these comments is a 1933 report that documents the work of the National Forest Reservation Commission between 1911 and 1933. The report was photo copied from its original book format, and in its original form contains 21 pages. The copy was obtained from the archives of the Forest History Society.

The most noteworthy feature of the 1933 report of the National Forest Reservation Commission is the table shown on page 19 of the report. Table 2 is an accounting of lands acquired and proposed for acquisition by acreage and cost. The National Forest lands in Virginia are accounted for in this table. The table expressly declares that all of these National Forest Lands in the eastern U.S. were acquired, or were to be acquired, “PRIMARILY FOR WATERSHED PROTECTION”.

The most fundamental function of the Jefferson National Forest is for watershed protection. Even though the Weeks Act has been subject to lore of differing opinion, in 1933 the National Forest Reservation Commission declared the primary purpose of National Forest acquisition to be watershed protection.

The FERC record in this pipeline certification process is absolutely loaded with concerns about karst geology, extreme slopes, unstable soils, landslides, changes in hydrology, loss of water supply, contamination of water supply, erosion and stream sedimentation, and impacts to aquatic life -- including endangered species. The concerns are warranted, and Preserve Craig incorporates every last one of them into their comments by global reference. **There is no evidence that there are any mitigation measures that can prevent the harms that are certain to occur. MVP cannot be allowed to generally assert that mitigation will be used without providing the evidence that any purported mitigations will work.** NEPA requires the disclosure of both the harms to the environment and proof that measures used to mitigate the harms actually work. Otherwise, the harms cannot be discounted in the analysis.

When the FERC weighs the purported public benefits against the endless string of harms the pipeline will cause, mitigation cannot be used to tip the scale in favor of benefits unless MVP can prove that the mitigation is effective.

The Forest Service is charged first with the responsibility of watershed protection under the purpose for which the Jefferson National Forest was created. The Forest Service has a public duty in this regard that goes beyond the land management prescriptions in the forest management plan.

The US Forest Service has additional duties independent from FERC under the National Forest Management Act, the National Environmental Policy Act, the Endangered Species Act,

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the National Historic Preservation Act, the Wilderness Act, and likely others, as these laws apply to our National Forests. In addition, the Forest Service shares duties with the Commonwealth of Virginia in protecting certain natural heritage resources.

Impacts to Wilderness Are Unacceptable

Among the alternative corridors proposed on the National Forest, Alternate 110R is routed between two Wilderness Areas. A 500 foot right-of-way corridor is located between the two Wilderness Areas. There is an existing electricity transmission line in the corridor. A map that illustrates the proposed route is attached to these comments.

A Preserve Craig supporter recently walked the corridor between the two Wilderness Areas and the map features are based on GPS data that he collected. The person who walked the corridor made several significant observations. First, the corridor between the two Wilderness areas is not cleared land. The power line towers are located on the ridges. The hollows between the towers are mature forest land, perhaps even old growth forests. But for the presence of the towers and the power lines, the two Wilderness Areas are effectively un-fragmented and are joined in an ecological sense. Furthermore, the terrain is so steep and rugged, it would be impossible to construct a pipeline within the corridor without also using land within the Wilderness boundaries, which is not an option.

The analysis must address the construction techniques and any purported mitigation -- together with the evidence that mitigation will have the intended effect -- for construction in the extreme conditions that are present within the corridor between the Wilderness areas. The analysis must fully account for lost Wilderness values, the introduction of invasive species, the slope hazards and impacts to water resources. Preserve Craig asserts that constructing a 42 inch gas pipeline between the two Wilderness areas is irresponsible, if not impossible.

Real Life, as Constructed, Visual Impact Analysis Is Required to Demonstrate Protection of Existing Standards

Based on the Resource Reports, MVP is already intended to avoid full disclosure of the visual impacts of the pipeline. MVP intends to impermissibly limit the site distance. Preserve Craig asserts that the sight distance analyzed should be at least 10 miles, depending on the observation location. The visual qualities in Craig, Roanoke, Montgomery, Giles and Monroe Counties are spectacular. The linear nature of a pipeline exacerbates the visual impacts because the eye is naturally drawn to follow the linear disturbance. Impacts to recreational experiences from all of the scenic trail locations must be analyzed.

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In addition to short changing the distance, MVP will project visual impacts in the long term rather than the here and now. This is unacceptable. The visual impacts need to be analyzed in the real world. Visual impacts need to be analyzed at the very least at one-year out, and for the construction corridor, not the maintenance corridor. MVP has published fliers that show construction techniques on ridge crests that flatten the ridges and divert water flow away from the trenching with pipes. The visual analysis must show the site-specific effect of the actual construction technique that will be used on each ridge top or ledge. In other words, the only acceptable visual analysis must be performed once the engineers have determine the construction methods. This is not a theoretical exercise.

Impacts to Old Growth, Remote and Bear Habitats, Climate Change, and the Cumulative Impacts

The fact that the Revised Land and Resources Management Plan would require amendment to allow transmission corridors where not currently permitted by the plan is a matter of record. The LRMP for the Jefferson National Forest was developed with extraordinary collaboration with the public and the resource agencies with whom the Forest Service partners in managing assets such as bears, and over a very long period of time. Amending a Forest Plan is not a trivial matter. We implore the Forest Service to require thorough analysis of the impacts to the resources that make the National Forest in Craig County a spectacular recreation experience.

In addition, the Forest Service has policies that require the analysis of agency actions on Climate Change, as well as the effects of Climate Change on the resources. Both the consideration of the pipeline right-of-way and any necessary amendment to the Forest Plan must consider the agency's role and obligation to consider Climate Change impacts in its decisions. I believe the estimate is 450 acres of habitat taken out of forest production, so not only will carbon storage be lost from trees removed, no regrowth will occur. Emissions from the pipeline itself and the compressor stations also must be taken into account in a carbon budget analysis. Arguably, all the fossil fuels that will be burned to construct the pipeline should be accounted for in the analysis.

The Forest Service also has an independent obligation to address the cumulative impacts across both the George Washington and Jefferson National Forests for all of the pipelines that are proposed for construction, or reasonably foreseeable, including Climate Change.

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Forest Service Directives Signal That the Mountain Valley Pipeline is a Controversial Proposal on the National Forest

Chapter 2720 of the Forest Service Manual 2700 requires Congressional oversight of any proposed pipeline construction across National Forests in which the pipeline exceeds 24 inches in diameter. *See*, FSM 2726.31(2.). The Congressional process must be open and fair to the citizens of Craig County. In that regard, there must be sufficient advanced notice of any hearings, and ample representation before Congress of the public interest in conserving the Jefferson National Forest. This is not a forum in which a token environmental representative can adequately represent the public interest.

The Congressional action that is required also should be a forum for vetting the cumulative impacts of all the enormous natural gas pipelines that are proposed to impact the GW&Jeff, as well as Climate Change impacts on the National Forests.

FSM 2726.34 (1)(b) requires the FERC certificate to be granted before the special use permit decision is made. FERC's practice is to grant certificates and authorize construction while withholding final determinations on rehearing requests that would allow interveners their day in court. FERC is currently in litigation over this practice in the United States Court of Appeals for the Second Circuit. The Pace Environmental Law Center has brought a mandamus action against FERC in the case of the Constitution pipeline.

In the case of the MVP, it would be improper for FERC to authorize any construction unless and until the Forest Service grants a special use permit. Similarly, all consultation under the Endangered Species Act, the National Historic Preservation Act, and all required Clean Water Act Permits must be in place before construction can be authorized.

In addition to the size of the pipe creating a layer of Congressional oversight, the size of the right-of-way proposed by MVP is problematic. MVP proposes a 125 feet construction right-of-way and a 75 feet permanent right of way. Forest Service Directive 2726.31, contained in Chapter 2720 of the Forest Service Manual 2700, requires a special finding that any pipeline right-of-way may exceed 50 feet.

2726.31c - Width of Pipeline Rights-of-Way

Pipeline rights-of-way shall be only wide enough for efficient operation and maintenance of the pipeline after construction. They shall not exceed 50 feet plus the ground occupied by the pipeline or its related facilities, unless the issuing officer records the reasons why a wider right-of-way is necessary for operation and maintenance after construction, or to protect the environment or public safety.

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Approve temporary additional widths as necessary during the construction phase of the pipeline.

FSM 2726.31c. In fact, the survey permit granted to MVP violates this standard.

The Pathways for creating Off Road Vehicle and ATV Access are Unacceptable Impacts that Cannot Be Mitigated

The Forest Service has extensive data on the illegal roads and trails across the GW&Jeff. It is believed that the miles of illegal roads exceed the miles of official roads. One can easily search the internet, and find, video clips of yahoos tearing up pipeline corridors with ATVs.

Illegal access to the National Forest is of particular concern in Craig County where the National Forest is on the ridgetops and mountain slopes and the human populations are below in the valleys. Numerous comments have been filed in regard to the limited capacity and access to fight fires. Illegal use introduces invasive species and contact with resources that have remained remote and undisturbed for decades. The Forest Service staff said themselves that without the request to survey the pipeline corridors, the Forest Service would be leaving that land alone.

Preserve Craig asserts that the impacts are unacceptable on their face and there is no means of mitigation. The analysis must fully disclosed the cumulative impact of increasing illegal access on the National Forest, and must weigh heavily against any purported public benefit.

Endangered Aquatic Species

The Forest Service has formally assumed and adopted an obligation to protect listed threatened and endangered aquatic species as incorporated into the RLRMP for the Jefferson NF, and the Fish and Mussel Conservation Plant. The Forest Service cannot now turn its back on those obligations. The Fish and Mussel Conservation Plan means what it says in regard to barring activity in buffer zones. And the US Fish & Wildlife Service has reserved its authority to extend the buffer requirements on a case by case basis. Preserve Craig urges the Forest Service to fulfill its obligations to the conservation of aquatic species who cannot move out of the way of impending doom.

The effectiveness of standard measures for mitigation of water resource impacts associated with pipeline construction is a significant issue that needs to be systematically examined during EIS preparation.

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The EIS should analyze the provisions, implementation, and effectiveness of water-related environmental laws, regulations, and best management practices that apply to pipeline construction. This analysis should specifically address the effectiveness of standard measures for mitigation of water resources impacts associated with large-scale pipeline construction in the difficult, complex, and hydrologically sensitive terrain of the central Appalachian region mountains and valleys.

The Dominion Pipeline Monitoring Coalition has initiated a Case Study Project to investigate the implementation of regulatory programs for erosion and sediment control and stormwater management at current and recent pipeline projects in the ACP project region. Although the projects available for study are very small in comparison with the proposed ACP, the DPMC's initial investigation of these projects shows that the regulatory system cannot be relied on to ensure water resource protection.

For example, the DPMC has examined a recent project on National Forest land in Virginia, where regulatory oversight was absent and fundamental regulatory requirements were waived or ignored. For example, we have examined a recent project on National Forest land in Virginia, where regulatory oversight was absent and fundamental regulatory requirements were waived or ignored. *See*, Dominion Pipeline Monitoring Coalition, Regulatory System Investigation, National Forest Pipeline, 2015. <http://pipelineupdate.org/case-study-no-1/>. DPMC also is studying a series of problems at Dominion pipeline construction sites in WV. West Virginia Department of Environmental Protection, October 1, 2014, [Consent Order No. 8078](#). A Consent Order issued by the WV Department of Environmental Protection in October 2014 describes continuing water quality violations related to slope failures in pipeline corridors at 18 separate locations. **DPMC's investigations indicate that these pipeline projects and regulatory system failures represent the rule rather than the exception.**

We argue therefore that the EIS must include an analysis of the applicable water-related regulatory programs and mitigation requirements administered by state and federal agencies, including FERC, the WV Department of Environmental Protection, the VA Department of Environmental Quality, the U.S. Army Corps of Engineers, and the U.S. Forest Service.

The analysis provided in the EIS should focus on recent and current pipeline construction projects in mountainous terrain similar to that of the proposed MVP route, and it should include:

- a. A review of records related to water quality and erosion and sediment control performance and violations
- b. A review of available evidence concerning the effectiveness of standard and required mitigation measures for protection of water resources

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c. Analysis of factors contributing to water resource protection failure, including:

- 1) non-adherence to regulatory requirements, standards, and guidelines;
- 2) issuance of waivers or authorization of variance from requirements, standards, and guidelines; and
- 3) inadequacy of regulatory requirements, standards, and guidelines.

FERC has adopted Plans and Procedures documents that identify baseline mitigation measures for minimizing construction-related project impacts, including erosion and impacts to wetlands and waterbodies. These documents are general and applicable to a broad range of environmental conditions. Large pipeline construction across the Appalachian and Blue Ridge Mountain regions presents difficulties that are not present elsewhere, including steep, rugged, and unstable slopes, narrow valleys, karst terrain, high-runoff conditions, etc. The adequacy of the measures described in the Plans and Procedures documents needs to be evaluated and additional or more-stringent measures should be considered. This evaluation should be conducted in the context of EIS development.

Finally, it bears repeating that one of among many of the concerns expressed by Preserve Craig is the utter lack of proof that sediment, erosion, and impacts to water resources can be mitigated. NEPA requires the applicant to show that proposed mitigation measures are effective against the environmental impact that the measures are intended to reduce. The Forest Service knows this, and must show that any purported mitigations are effective. Preserve Craig is concerned that the Forest Service will not require proof of efficacy of mitigation because the Forest Service rarely does so itself. This is not a race to the bottom, and the requirements to prove the efficacy of mitigation is universal regardless of the Forest Service's own NEPA compliance record.

Sincerely,



Tammy L. Belinsky,
Counsel for Preserve Craig, Inc.

Enclosures

Lands' Law Review

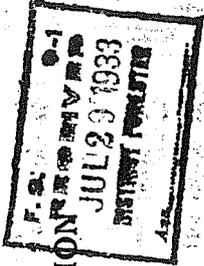
Additional copies of this report secured upon application to
John L. Burch, Secretary National
Forest Reservation Commission, At-
tention Building, Washington, D. C.

REVIEW OF THE WORK

OF THE

NATIONAL FOREST RESERVATION
COMMISSION

1911-33



The act authorizing purchases of lands for national forest purposes, popularly known as the Weeks law, was signed by the President on March 1, 1911. Section 4 thereof provided for a Commission to be known as the National Forest Reservation Commission, consisting of the Secretary of War, the Secretary of the Interior, the Secretary of Agriculture, 2 Members of the Senate to be selected by the President of the Senate, and 2 Members of the House of Representatives to be selected by the Speaker, the duty of such Commission being to consider and pass upon such lands as may be recommended for purchase as provided by the act, and to fix the price or prices at which such lands may be purchased. The act stipulated that no purchases should be made of any lands until such lands had been duly approved for purchase by said Commission.

On March 2 the President of the Senate appointed to the Commission Hon. Jacob H. Gallinger, Senator from New Hampshire, and Hon. John Walter Smith, Senator from Maryland. On March 4, 1911, the Speaker of the House of Representatives appointed to membership on the Commission Hon. Willis C. Hawley, of Oregon, and Hon. Gordon Lee, of Georgia. The membership of Mr. Hawley continued unbroken from that date until March 4, 1933; that of Mr. Lee until shortly prior to his death in 1926. The Senate membership on the Commission has changed a number of times during its life, while even more numerous changes have occurred in the representation of the three executive departments.

On March 7, 1911, the Commission held its first meeting for the purpose of organization and selected as its President the Secretary of War, doubtless in recognition of the fact that he was the senior in rank and the first Cabinet Member named in the act. Each succeeding Secretary of War has served as presiding officer of the Commission. (See Table 1, p. 2.)

FISCAL YEAR 1911

On March 27, 1911, announcement was made of the establishment of 13 purchase areas situated in 9 of the Eastern States. These contained a gross area of 4,825,472 acres, but included 2 areas within which no purchases were ever made and which subsequently were abolished, namely, the Youghiogheny in Maryland and the Smoky

2 copies sent to [unclear]

Mountains area in North Carolina and Tennessee. The other 11 purchase areas, subject to some modification and redesignation, are now among the bright stars of the national forest galaxy.

As the program developed through succeeding years approved purchase units frequently were merged, divided, or redesignated to facilitate administrative action or to conform to proclaimed national forest boundaries. In consequence there is no consistent numerical continuity or regularity in their numbers or boundaries from year to year, but the action of the Commission is recorded as a matter of historical interest. The total acreage within the existing purchase units are correctly stated.

By June 30, 1911, there had been offered for sale to the United States 1,264,922 acres of land and over 150,000 acres had been examined, but due to shortness of time and difficulty in reaching price agreements, only one purchase of 31,876 acres within the State of Georgia had been approved by the Commission.

Fiscal year in which existing national forest purchase units were originally established

1911:	Monongahela.	Hiawatha.
	Mount Mitchell.	Kisatchie.
	Nantahala.	Marquette.
	Natural Bridge.	Wambaw.
	Pisgah.	1929:
	Shenandoah.	Choctawhatchee.
	Unaka.	Flambeau.
	White Mountain.	Green Mountain.
	Yadkin.	Moquah.
1912:		Ocala.
	Roone.	Oneida.
	Cherokee.	Ottawa.
	French Broad.	1930:
	Georgia.	Cumberland.
1914:		Evangeline.
	Alabama.	Homochitto.
1918:		Kiamichi.
	Ozark.	1931:
	Ouachita.	Mesaba.
1921:		Vernon.
	Allegheny.	1932:
1926:		Chequamegon.
	Huron.	Mondeaux.
	Superior.	Oconto.
1928:		
	Black River.	
	Catahoula.	

FISCAL YEAR 1912

By the end of the fiscal year 1912 the number of purchase units, including the two subsequently abolished, had increased to 18, situated in the same 9 States and containing a gross area of 6,383,553 acres. In this year the Commission approved for purchase a total of 255,892 acres of land.

The report for the fiscal year 1912 implied a probability that the lands ultimately to be acquired by the Government need not exceed from 50 to 75 percent of the several purchase areas, the thought being that purposes of the Government could be accomplished by the ac-

Fiscal year	Members of the Commission	Secretaries to the Commission
1911	Henry L. Stimson.	W. R. Pedigo.
1912	Lindley M. Garrison.	W. Leonard Brady.
1913	Franklin K. Lane.	W. W. Ashe.
1914	David F. Houston.	do
1915	do	do
1916	Newton D. Baker.	do
1917	do	do
1918	do	do
1919	do	do
1920	John Barton Payne.	do
1921	John W. Weeks.	do
1922	do	do
1923	Hubert Work.	do
1924	do	do
1925	Dwight F. Davis.	do
1926	do	do
1927	do	do
1928	Roy O. West.	do
1929	Ray Lyman Wilbur.	do
1930	Arthur M. Hyde.	do
1931	Wh. J. Harris.	do
1932	do	do
1933	do	do
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2022	do	do
2023	do	do
2024	do	do
2025	do	do
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2027	do	do
2028	do	do
2029	do	do
2030	do	do

Table 1—Members of the Commission

quisition within the purchase areas of two or three compact bodies of land containing from 25,000 to 100,000 acres well suited for protection, administration, and use, it being assumed that, with careful protection from fire and with the introduction of conservative methods of logging, these tracts would become demonstrations of actual forest conservation, permit of cooperation with the surrounding private owners both in fire protection and conservative lumbering, and thus in the end bring most of the Appalachian region to a safe condition as to watershed protection and to a much better state as to forest productivity than had previously prevailed.

The report stated that certain additional purchase areas would have to be located before a substantial foundation was laid for the complete safeguarding of the Appalachian region, but that it appeared unnecessary to acquire in that region more land than was estimated as necessary in the report to Congress made by the Secretary of Agriculture in December 1907, which stated that 5 million acres in the Southern Appalachians and 600,000 acres in the White Mountains would be all that need be acquired.

The use of eminent domain was discussed in the 1912 report with the statement that the Commission had so far deemed it inexpedient to make general use of condemnation, since it was believed that it would result in much litigation and fail to accomplish the ends desired from the standpoint of educating the public to the necessity of conserving the forests. The Commission held that it was best to proceed by purchase so far as possible and to employ condemnation only in those cases where it might be necessary in order to perfect title or where in the face of great public needs it was impracticable to obtain the lands by purchase.

The 1912 report mentions with approval the action taken by Congress in making available until expended the appropriation for the fiscal years 1912-15, inclusive, commenting that such action renders certain the purchase of desirable areas at a price and under conditions more favorable to the Government than could have been accomplished if an appropriation required the expenditure of the money within a specified fiscal year as originally provided. The report also recommends amendatory legislation permitting acceptance of title to offered lands subject to a reservation by the vendor of the right to remove timber or minerals from such lands under rules and regulations to be expressed in the instrument of conveyance.

FISCAL YEAR 1913

The 1913 report records the existence of 20 purchase areas, including 2 subsequently abandoned. Of these, 3 were in New England and 17 in the southern Appalachian region. Their gross area was 6,627,541 acres. During the year the Commission approved for purchase 425,717 acres, which brought up to a total of 713,415 acres the land approved by the Commission up to June 30, 1913.

The subject of surveys is discussed in the 1913 report, which records the fact that before approving any purchases the National Forest Reservation Commission established the rule that lands would be acquired on an acreage basis, the acreage being determined by a survey by horizontal measurements as in the survey of public lands. Reference is made to the difficulty of survey and the high cost

thereof, and the hope is expressed that as additional tracts are acquired and boundary lines are defined the costs of survey would decrease from year to year.

In the 1913 report the Commission recommends that section 13 of the Weeks law, authorizing the payment of 5 percent of national forest receipts to the States for the benefits of the counties in which the national forests are situated be amended to provide for a payment of 25 percent of the receipts, as previously had been done in relation to the western public land national forests.

FISCAL YEAR 1914

During the fiscal year 1914 an additional purchase area was established in the State of Alabama, and by various changes the gross acreage embraced within the system of purchase areas was increased to 6,966,304 acres. Of this area, 1,404,529 acres had by the end of the fiscal year 1914 been approved for purchase, the approval during 1914 aggregating 391,114 acres. The report for 1914, for the first time, discusses in some detail the character of the lands which are being acquired and the methods of valuation; also the circumstances which operated to restrict purchases within the established units. It repeats the thought that complete acquisition of the established units may not be necessary; that by acquiring areas of special strategic importance, which will serve as demonstration forests and centers of influence for forest protection and proper utilization, improved conditions may be secured over much larger areas.

The 1914 report also emphasized the fact that by purchasing in a number of purchase areas at the time it had been possible to make greater headway and secure better prices than if purchases had been limited to one or two areas, explaining that in any particular area there were times when little headway could be made and other times when it was possible to make great progress, so that only by having a number of areas could fairly steady progress be made. The report further states that another great advantage of carrying on purchases in a number of areas at once is that competition and better prices could be secured. Another comment in the report is as follows:

In a report to Congress December 11, 1907, the Secretary of Agriculture expressed the opinion that by the ownership of 5 million acres in the southern Appalachians and 600,000 acres in the White Mountains the Government could lead the way to right management and use of the Southern Appalachians and White Mountains regions. The Commission, after an experience of more than 3 years in making purchases, regards that view as being entirely sound. We do not now believe it will be necessary to acquire larger areas to accomplish the purposes of the act in the southern Appalachians and White Mountains. In the view of the Commission the acquisition of these areas should be considered as the present working program.

Although to this time purchases have been limited to the southern Appalachians and the White Mountains, experience is indicating the advisability of undertaking purchases before long in the Ozark Mountains, Ark., and possibly in certain other mountainous sections. Such purchases, however, should be on a small scale as compared with those in the Appalachian region.

Another significant statement in the 1914 report is as follows:

It is the judgment of this Commission that the work can best be done under appropriations covering periods of 5 years each, the appropriations becoming available annually and remaining available until expended, as is now the case.

purchase. In number and location the purchase areas remained unchanged, and only very minor changes occurred in their gross area. The Commission again expressed its attitude toward condemnation proceedings in the following language:

As in previous years, the Commission has considered only lands which are voluntarily offered by the owners. Condemnation has not been resorted to as an arbitrary procedure, but merely as a means of securing safe title where the price was already in agreement with the major claimants to title. While it is not intended to depart from this general procedure, there will doubtless arise cases where it will be desirable to employ condemnation in order for the Government to secure lands the control of which is essential to the proper development and use of important areas already acquired. Certain tracts will become necessary to give an outlet to public highways, streams, to fill in gaps, or tie together important separated tracts. Such tracts it will in the interest of the public take under the power of eminent domain.

FISCAL YEAR 1917

Funds for the purchase of lands having again been made available, the Commission during the fiscal year 1917 approved for purchase a total of 175,463 acres, making the cumulative total of approved purchases 1,501,857 acres. The established purchase areas remained unchanged in number and location, but certain minor modifications of the boundaries caused a slight net increase in the total acreage which they embraced. This year marked the initiation of actual purchases in the State of Alabama.

FISCAL YEAR 1918

The report for the fiscal year 1918 records the approval of purchases aggregating 185,199 acres, the cumulative total being shown as 1,681,790 acres. During the year the initiation of purchase work in the Arkansas and Ozark National Forests, State of Arkansas, had been authorized and the approved purchases included 440 acres in those two units.

The report notes that otherwise, because of the pendency of the World War, the Commission had followed a conservative policy in considering lands for purchase and notwithstanding the enactment by the State of Kentucky of an act of consent to purchases in that State, the Commission had decided to confine its purchases to the consolidations of existing units. The exception in the State of Arkansas was in recognition of the difficulty of administering the lands reserved from the public domain and of the importance of protecting the watersheds of the Ouachita, Arkansas, and White Rivers.

During this year the Alabama, Natural Bridge, Shenandoah, and White Mountains areas were given a formal national forest status by Presidential proclamation.

FISCAL YEAR 1919

The report for the fiscal year 1919 remarked that the termination of work for that year in a large measure completed the expenditure of the original appropriation of 11 million dollars which had been made for the purchase of lands under the act of March 1, 1911. The belief was expressed that the results of the expenditure of the

Experience has shown that it is entirely impracticable to attempt to do this work under appropriations which expire with the fiscal year. That plan was fully tried and it had to be changed through an amendment to the act. It is likewise of the utmost importance that appropriations be continued through periods of not less than 5 years. Regularity of appropriations, which in this work is of the utmost importance, can best be secured in that way. When this work was begun its requirements were such that well-trained men were not available. A force of timber cruisers, title examiners, and surveyors had to be assembled and trained as experts, a task which required some 2 years. It would be most unfortunate to have to disband this force in case funds were not appropriated for any given year. If purchases were suspended during any year it would also require much time and expense to get under way again the negotiations that would be broken off. Many of the cruises and examinations which would have been made and which would not have resulted in purchases would have to be made over again. From every point of view it is highly desirable that appropriations continue without interruption.

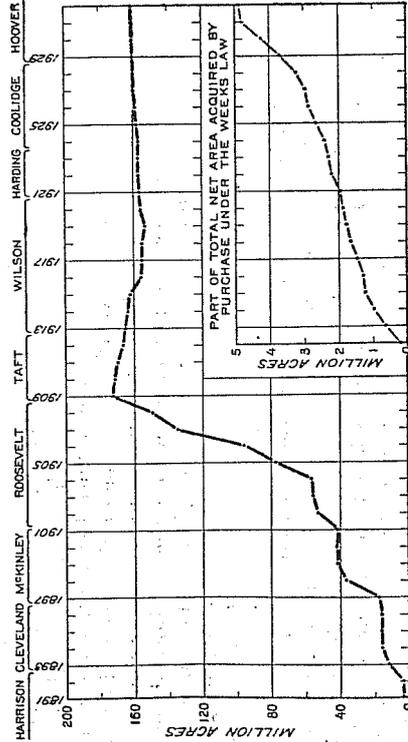


FIGURE 1.—Total net areas of national forests by years.

FISCAL YEAR 1915

There was no change in the number, location, or gross acreage of the purchase units during the fiscal year 1915, but through the approval of purchase of 282,900 acres the cumulative area approved for purchase attained the figure of 1,317,551 acres, roughly comprising about 20 percent of the total acreage within the established purchase areas. The purchases then approved were confined to 16 of the 21 established units.

This 1915 report also contained another expression of Commission policy as follows:

It has constantly been the aim of the Commission to keep the lands which are being acquired as well blocked up as possible. In this region the average mountain forest has been generally regarded in the past as wild land, and has been exposed to frequent fires and to many forms of trespass. Scattered lands not only could not be administered economically, they could scarcely be administered at all.

FISCAL YEAR 1916

As no appropriation for the purchase of lands had been made by Congress for the fiscal year 1916, the activities of the Commission were limited to the approval of 65 tracts aggregating 54,898 acres, which brought up to 1,329,038 acres the total area approved for

\$11,000,000 showed that purchases had been made judiciously and to the financial advantage of the Government. In the opinion of the Commission the beneficial results secured warranted further purchases along two lines—the establishment of new areas and the completion, extension, and solidification of existing purchase areas. In order to carry out this policy the Commission recommended that an appropriation of \$10,000,000 be made covering a 5-year period with \$2,000,000 a year, beginning with the fiscal year 1921, an appropriation of \$600,000 having been made for the fiscal year 1920. The value of a continuing appropriation of such kind in maintaining a skilled and qualified personnel and purchase organization is again emphasized.

In the 1919 report the Commission suggested that in addition to a consolidation of existing purchase areas, conditions then seemed to justify the inauguration of a policy of expansion, as the situation brought about by the war demonstrated the necessity for a large area of Government-controlled forests in the Eastern States in which timber could be produced of a size and quality to meet the urgent demands either of commerce or of war. The belief was expressed that additional areas should be established in not only the Appalachians, especially in Kentucky, but that additional areas should be established in West Virginia and, if suitable conditions existed, in Ohio and Vermont as well as in other States within which areas were already located. The report also stated that the purchase policy could very well be extended to include other national forests, as means of consolidating then existing Federal holdings, it being stated that such policy was needed on many forests.

The lands approved for purchase during the fiscal year 1919 aggregated 103,355 acres, thus bringing the total area approved up to 1,768,927 acres. Of the 22 established areas there were 4 in which no purchases had been made; 2 of these subsequently were abandoned.

FISCAL YEAR 1920

Although the appropriation for the fiscal year 1920 was but \$600,000, lower average prices per acre made it possible for the Commission to approve 101,428 acres. With this addition the uncorrected total area approved was 1,870,355 acres. This, however, included areas of defective title and areas whose extent was reduced by survey, so that at the close of the year the net approved area stood at 1,796,788 acres.

During the year the Boone and Mount Mitchell purchase areas were formally established as the Boone National Forest by Presidential proclamation; the Cherokee and Georgia areas as the Cherokee National Forest; the Monongahela and Savannah areas as the Nantahala National Forest; and the Massanutten, Potomac, and Shenandoah areas at the Shenandoah National Forest. The Commission in its 1920 report called attention to the fact that, although another year had passed, Congress had taken no steps to carry out the recommendation of the previous year that an appropriation of \$10,000,000 be made beginning July 1, 1920, to enable the Commission to continue the purchase program. Belief was expressed that there was urgent reason for expediting the purchase work. At a meeting held November 29, 1920, the Commission adopted a resolution recom-

mending largely increased appropriations by Congress to expedite the work of acquisition on a basis more nearly commensurate with the actual needs of the Nation. Comment is made upon the need for extensive expansion within the next few years of the Government's holdings on the headwaters of navigable streams, and especially on the Ohio and its tributaries. The headwaters of the Allegheny River is mentioned as an area suitable for a purchase unit as a step toward the protection of Pittsburgh and other cities on the Ohio River and its larger tributaries from destructive floods. Mention is made of the possibility of suitable areas in northeastern Mississippi, in the mountains of Oklahoma, and possibly in northeastern Texas as measures for the protection of navigable streams.

FISCAL YEAR 1921

In the fiscal year ending June 30, 1921, no new purchase units were established, but some of the older units had been extended or added to, and at the close of 1921 embraced a total gross acreage of 8,562,657 acres, of which by the end of that year 1,970,511 acres had been approved for purchase, the area approved in 1921 amounting to 112,397 acres.

The 1921 report comments upon the fact that while \$1,000,000 had been appropriated for purchases during the fiscal year 1922, there had been offered and were available for consideration out of that appropriation more than 1,300,000 acres of land having an approximate value of \$8,000,000. The opinion was expressed that the time was most opportune for making purchases, the Commission believing that every advantage should be taken of the existing conditions, especially with the objective of effecting consolidations within established units by the acquisition of interior holdings. The desirability of maintaining the integrity of the purchase organization developed by more than 10 years of selection and training was again stressed. However, the Commission instead of renewing its recommendations for appropriations of \$10,000,000 for a 5-year period confined its recommendation to an appropriation of \$1,000,000 for the fiscal year 1923.

FISCAL YEAR 1922

On December 21, 1921, the Allegheny purchase unit in northeastern Pennsylvania was established with the approval of the Commission, and purchases of land were initiated therein. This increased the number of purchase areas to 23, of which 4 were inactive.

The 1922 report discussed the ending of a decade of service by the Commission under the act of March 1, 1911. Under the heading "Accomplishments" it showed that in 19 different purchase units, situated in 11 different States, 2,142,476 acres of land had been acquired or was in process of acquisition at an average price of \$5.06 per acre, in addition to which there were 4 units within which no land had been acquired. The acreage approved during the year was 242,169 acres, at an average price of \$3.31 per acre, which was \$1.13 below the yearly average price thereto. Including the 4 units in which purchases had not been made the purchase program was said to be nearly three fifths complete.

FISCAL YEAR 1924

The outstanding event in national forest land purchase work during the fiscal year 1924 was the enactment by Congress on June 7, 1924, of an amendment to the Weeks law, popularly known as the Clarke-McNary law, which authorized purchases of forest land for timber production as well as for stream-flow protection. In its original form the Weeks law limited purchases to land on the upper headwaters of navigable streams which were found by the Geological Survey to have a direct relationship to stream flow. Under that limitation purchases in the enormous relatively level expanses of forest lands in the Lake States and in the South Atlantic and Coast States, notwithstanding their urgent desirability, could not be effected. The Clarke-McNary law made such purchases possible. The enactment of the Clarke-McNary amendment of the Weeks law was inspired largely by the findings of the Senate Select Committee on Re-forestation, appointed pursuant to Senate Resolution 398 of the Sixty-seventh Congress, which were set forth in Senate Report No. 28, Sixty-eighth Congress. However, the findings of the Senate Select Committee were completely supportive of the views and conclusions which the National Forest Reservation Commission repeatedly had expressed during preceding years, and strongly confirmed the desirability of extending the national forest land purchase work into many new States where forest problems had become acute and could not adequately be handled by the States without the assistance of the Federal Government.

During 1924, however, no change occurred in the number of location of the 19 active and 4 inactive purchase units. At the close of the fiscal year the gross area within these units was 9,568,515 acres. During the year the Commission considered and approved 130 different tracts containing a total area of 130,290 acres, which added to the area approved in previous years, brought the total approved area up to 2,346,354 acres, after eliminations had been made because of defective titles or the determination of correct areas through survey.

The 1924 report contains this statement:

With a view to maintaining the work on the plane on which it can be conducted most economically, the Commission has authorized the Secretary of Agriculture to transmit to the Director of the Budget an estimate for the fiscal year 1926 in the amount of \$2,000,000. With an annual appropriation of this amount or with assurance that it would be continued from year to year, not less than this amount, the Commission would be justified in putting into execution plans for the expansion of purchase work through the establishment of a number of new purchase units in regions where the protection of stream flow is an important consideration, as well as the location of units within new fields opened through section 6 of the Clarke-McNary Act.

FISCAL YEAR 1925

During the fiscal year 1925 the Smoky Mountains purchase unit was abolished to facilitate its consideration as a national park, which it subsequently became. No new purchase units were established during the year, but the Cherokee unit in Tennessee was extended to the northwest as far as the Little Tennessee River and southward into Georgia, including an additional area of 245,694 acres. The net result of these changes was a reduction of 446,216 acres within the gross area of all the purchase units, which thus became 9,122,299

Discussing in detail the forest situation in the Eastern States the Commission in its 1922 report recommended that as soon as the financial conditions of the country would justify it the appropriation for conducting the work would again be placed on the scale of \$2,000,000 a year, the amount of the earlier appropriation. The suggestion was renewed that the appropriation should cover a number of years in order that the work could be planned ahead so as to secure proper and economic handling. One argument in support of this suggestion is that it would permit a larger area to be acquired each year than had been possible during the preceding 5 years, would reduce the overhead expenses and the cost per acre of making purchases, and would further permit the establishment of additional purchase units in other States and forest regions, among which were named Vermont, Ohio, Indiana, Illinois, Kentucky, Missouri, Oklahoma, Louisiana, Texas, Mississippi, and the Lake States, as well as additional lands in the States within which purchases were then being made. A part of this report says:

For example, there is justification for enlarging the productive forest area on the headwaters of the Tennessee River. The large investments which have been made by the Government at Muscle Shoals, on the Tennessee River, will undoubtedly require for their complete utilization the storage of storm waters on the headwaters of the river for the purpose of securing a stable regimen, and in order to reduce to a minimum silting in reservoirs used for such purposes it will be desirable that they be located within forested watersheds.

FISCAL YEAR 1923

In the fiscal year 1923 the Commission approved for purchase 113 tracts distributed in 9 different States, aggregating 79,923 acres. As a result the area approved for purchase aggregated 2,205,027 acres, distributed throughout 17 purchase units in 11 different States. Of the original 23 units, 2 had been merged with others and there were 4 in which no purchases had been made. The total gross area of the purchase units had increased to 9,352,733 acres. Of the total area of the purchase units, including the 4 which were inactive, the Federal Government's holdings, including lands reserved from the public domain, approximated 26 percent.

The 1923 report contained this statement:

It is believed that there should be not only a great increase in the area of publicly owned forests in the Eastern States, and especially an increase in the national forest area as a source of supply, but that the system of eastern national forests should be extended as rapidly as possible to States in which there are at present no national forests, especially States in which there are no public forests, and where the physical conditions are such that lands are amenable to purchase under the act of March 1, 1911. The result would be to arouse the interest of landowners in these States in managing their properties for permanent timber production.

The desirability of a large purchase area in the State of Kentucky was discussed in detail. It was also proposed that, as soon as the State gave its consent, a large area of land be acquired in Missouri. Other States mentioned as desirable scenes for the operation of the law were Vermont, southeastern Ohio, Oklahoma, Louisiana, Texas, Mississippi, and the Lake States. The Commission renewed its earlier recommendation that appropriations of \$2,000,000 per year covering a number of years be authorized in order that the purchase work could be planned ahead. Legislation authorizing exchanges of lands within the purchase units also was recommended.

acres. This, however, included the three areas in which no purchases had been made and one of which subsequently was abolished. During the year the Commission approved the purchase of 248 tracts located in 10 different States, with an aggregate area of 247,067 acres, bringing up to 2,584,076 acres the total approved for purchase, after adjustments had been made. Exclusive of the three inactive areas and including lands otherwise in Federal ownership, the Federal holdings amounted to 43 percent of the land within the purchase unit which was of such character that its acquisition was desirable.

In 1925 the Commission recommended an appropriation of \$2,000,000 for the fiscal year 1927, regarding that sum and assurance that it would be continued from year to year in not less than that amount, as necessary to justify putting into execution plans for the expansion of the purchase work through the establishment of a number of new purchase units in regions where the protection of streamflow was an important consideration and also in regions where timber production as authorized by the Clark-McNary law was important. During the year numerous reconnaissance examinations were made in the Lake States and the southern pine States to determine and define additional areas suitable for purchase for the purposes authorized by the Clark-McNary amendment.

FISCAL YEAR 1926

An outstanding feature of the Commission's work during the fiscal year 1926 was the approval of two purchase units in the Lake States, the Tawas unit (subsequently renamed the Huron) in Michigan and the Superior unit in Minnesota, both embracing some lands previously reserved from the public domain for national forest purposes. With the consent and approval of the Commission, examinations of other areas within the Lake States and the southern pine States were conducted throughout the year. One unit, the Youghiogeny in Maryland, in which no purchases had been made, was abolished by the Commission because conditions were unfavorable to Federal purchase.

In the fiscal year 1926 the Commission considered and approved 186 tracts located in 12 States and aggregating 191,725 acres, including one of 50,080 acres in the newly created unit in Michigan. With these approvals the net area actually acquired or in process of acquisition was brought up to 2,772,965 acres. Including the newly created units, the gross area within all established purchase areas was 11,391,223 acres, the total number of units being 23, situated in 12 States, two of the units being inactive, while in a third, the Superior, no purchases had been initiated.

In 1926 the report of the Commission concludes with the following statement:

The appropriation of \$1,000,000 which has been made for several years is inadequate to maintain the purchase work upon a plane necessitated by the forest situation in the United States. The report of the select committee of the Senate which investigated the subject of forest devastation urged an appropriation of \$3,000,000 a year for the purchase of lands for national forests. This Commission has for several years recommended an appropriation of \$2,000,000 a year, and again urges that an annual appropriation of not less than this amount be made for the conduct of this work. Not only is it uneconomical to handle it upon a lower basis, but the forest situation, the rapid exhaustion

of the supply of mature merchantable timber, especially in the Eastern States, demands that the work of acquiring lands for public forests as a source of future timber supply and as a means of demonstrating to the private owner practical methods of management shall be carried forward at an accelerated rate.

FISCAL YEAR 1927

No new purchase units were created during the fiscal year 1927. On this point the report for that year comments as follows:

Although there is much local demand for an expansion of the purchase program through the establishment of national forests in the pine belt of the Southern States and elsewhere, it does not seem desirable to authorize any material broadening of the field of purchase until more ample appropriations with assured continuity are available for carrying forward such work in an economic manner.

There was, however, an addition of about 84,000 acres to the Monongahela National Forest, subsequently offset, however, by eliminations from that unit of lands found to be nonpurchasable. During this year the Potomac, Massanutten, and Shenandoah purchase units were combined under the single name of the Shenandoah unit.

In the fiscal year 1927 the Commission approved for purchase 137 tracts located in 12 States and aggregating 135,088 acres in area. With this action the area acquired or in process of acquisition increased to a total of 2,892,741 acres, distributed through 10 of the purchase units situated in 13 of the Eastern States.

While the purchase of a single tract of 50,080 acres from the Michigan State Agricultural College had been approved during the fiscal year, the general initiation of purchase work in the Lake States occurred in the fiscal year 1927, when the purchase of 7,051 acres from various owners was approved by the Commission.

Another new development in 1927 was the consideration and approval by the Commission of certain additions of unreserved public lands in the Western States under the provisions of section 8 of the act of June 7, 1924. These proposals, 5 in number, contemplated the addition of 430,457 acres of public domain to 7 of the national forests in the West.

During the fiscal year 1927 the work of examining additional areas suitable for inclusion in national forests was conducted on an extensive scale. By the close of the year detailed reports were available in relation to a considerable number of areas in both the Lake States and the Southern Pine States, as well as additional areas primarily of watershed value within the Appalachian territory. The 1927 report of the Commission concluded with the following statement:

The appropriation of \$1,000,000, which has been made for several years, is inadequate to maintain the purchase work upon a plane necessitated by the forest situation in the United States. The report of the select committee of the Senate which investigated the subject of forest devastation urged an appropriation of \$3,000,000 a year for the purchase of lands for national forests. This Commission has for several years recommended an appropriation of \$2,000,000 a year, and again urges that an annual appropriation of not less than that amount be made for the conduct of this work. Not only is it uneconomical to handle it upon a lower basis, but the forest situation, the rapid exhaustion of the supply of mature merchantable timber especially in the Eastern States demands that the work of acquiring lands for public forests as a source of future timber supply and as a means of demonstrating to the private owner practical methods of management, shall be carried forward at an accelerated rate.

FISCAL YEAR 1928 During the fiscal year 1928 the Commission approved in principle a comprehensive long-term program of future purchases totaling 9,600,000 acres of land, as follows:

(1) Four million acres to consolidate Federal ownership within national forest units previously approved by the Commission and situated on the headwaters of navigable streams; (2) 2,000,000 acres to be embraced within new and additional national forest units for the protection of headwaters of navigable streams; (3) 1,100,000 acres to consolidate Federal ownership within existing national forest units in Minnesota and Michigan; and (4) 2,500,000 acres to constitute new or additional national forest units in the southern pine region and in the Northern Lake States primarily to aid in timber production and demonstrate forest practice. This program, carried to full fruition, would place a maximum of 15,000,000 acres of forest land under Federal ownership and management within that part of the United States east of the ninety-fifth meridian, which would be approximately 2 percent of the total area and 4 percent of the part thereof regarded as forest land.

In conformity with the general plan it had approved, the Commission approved the establishment in 1928 of the Mackinac and Marquette purchase units in the State of Michigan, of the Black River and Wambaw purchase units in the State of South Carolina, and of the Catahoula, Kisatchie, and Vernon units in Louisiana. At the close of the year there were 27 purchase units distributed throughout 14 of the Eastern States and embracing a total gross area of 12,239,796 acres. In six of these units no purchases had been approved, in one instance because conditions were unfavorable for purchase and in five instances because of the short period which had elapsed after approval of the units.

Acting under section 8 of the act of June 7, 1925, the Commission during the year also approved 3 proposed additions of unreserved public land, totaling 120,400 acres, to national forests in Colorado, Oregon, and Wyoming.

Purchases approved by the Commission during the fiscal year 1928 aggregated 261,107 acres, making the total approved area 3,140,606 acres, located in 21 purchase units in 13 of the Eastern States.

FISCAL YEAR 1929

The report of the Commission for the fiscal year 1929 presented a memorandum from the Forester which reviewed the entire history of the movement, the then existing situation and its apparent requirements in terms of Federal acquisition of forest lands east of the Great Plains, and the financial requirements thereof. This report had been carefully considered by the Commission and approved in principle.

In 1929 the Commission approved the establishment of the Oneida, Flambeau, and Moquah units in Wisconsin; the Keweenaw in Michigan; the St. Croix unit in Minnesota; the Green Mountain unit in Vermont; and the Choctawhatchee, Osceola, and Ocala purchase units in Florida. The Savannah was merged with the Nantahala.

By these steps the total number of purchase units increased to 35, situated in 17 of the Eastern States and embracing a gross area of 13,833,489 acres. In eight of the units no lands had been acquired or approved for purchase.

The area approved for purchase during the fiscal year 1929 was the greatest in the history of the Commission's activities, amounting to 464,177 acres. It increased to 3,720,516 acres, the total area approved by the Commission, but, due to defective titles, reductions in area disclosed by survey, etc., the net area actually acquired or in process of acquisition totaled 3,605,185 acres. One noteworthy purchase was that of a tract of 101.4 acres in the Allegheny National Forest, Pa., known as "Heart's Content," which bears a virgin stand of the white pine and hemlock forests characteristic of the original "Penn's Woods." This area has a high scientific and inspirational value.

During the same year the Commission gave consideration to several adjustments of the boundaries of existing purchase units by which nonpurchasable lands were eliminated from a number of the units and lands desirable of purchase were included, the result being to place the existing system of actual or potential national forests in better condition for effective and economical protection and management.

FISCAL YEAR 1930

The system of national forest purchase units was further enlarged during the fiscal year 1930 by the approval of the Cumberland unit in Kentucky, the Kiamichi unit in Oklahoma and Arkansas, the Homochitto unit in Mississippi, and the Evangeline unit in Louisiana. The total number of approved units was thus increased to 39 with a combined area of 14,777,251 acres situated in 20 of the Eastern States.

A total of 438,048 acres was approved for purchase during the fiscal year 1930, increasing to a corrected net figure of 4,133,483 acres the total of all purchases approved by the Commission.

FISCAL YEAR 1931

Certain important adjustments were made in the established system of purchase units during the fiscal year 1931. Because of difficulties of Federal purchase the St. Croix unit in Minnesota was abolished and in lieu thereof the Mesaba unit was established further to the northwest in the same State. For similar reasons the original Vernon unit in Louisiana was abandoned and a new unit of the same name was created in a region of equal importance but promising better opportunity for Federal acquisition. Appreciable changes also were made in the boundaries of existing units.

The acreage approved for purchase in the fiscal year 1931 surpassed all previous yearly records, amounting to 547,945 acres. In consequence the net area acquired or in process of acquisition at the close of the fiscal year, after consideration and approval by the Commission, totaled 4,675,020 acres, situated in 19 of the States east of the Great Plains, no purchases having been made in Kentucky.

Because of the financial situation, \$300,000 of the appropriation for the purchase of lands for the fiscal year 1932 was withheld from expenditure and allowed to revert to the Treasury. The appropriation bill for the year 1933 carried an item of only \$200,000, most of which was necessary to conduct or conclude existing activities. In consequence the total area approved for purchase fell far below that of preceding years, aggregating 83,086 acres. The cumulative total of all purchases approved was thereby increased to 4,727,680.

The 1932 report commented upon the fact that the acquisition program offered promise of contributing in substantial degree toward a solution of the problems relating to marginal and submarginal lands and to economic readjustments. While not specifically designed to withdraw submarginal lands from uneconomic farm crop production, and so carried out in earlier years as to minimize such result, the acquisition of lands logically desirable for Federal ownership tended to diminish the unwise agricultural use of appreciable areas.

It was also noted in the report that, to the degree that they permitted the liquidation of the capital investments in temporarily unproductive lands, the purchases in pursuance of the program were of local value in mitigating the financial situation which had prevailed during the year, as they were in earlier years in relation to conditions created by wide-spread and severe drought. During the several preceding years the factor of financial relief materially influenced the selection of lands to be purchased with the funds available, preference being given to the small offerings of resident landowners to whom opportunity to liquidate unimproved land holdings frequently was of very great assistance.

In view of the inadequacy of funds it was impossible to accept many proposals of land of unusual merit and financial attractiveness. Although the work of examination and appraisal was well advanced in the Cumberland purchase unit in Kentucky and the Mesaba purchase unit in Minnesota, and options had been secured on many desirable tracts in those areas, it was impossible to make any purchases therein.

Notwithstanding the impracticability of further purchase, the people of the State of Wisconsin urged approval by the Commission of three additional units in that State in order that the full Federal program of acquisition in Wisconsin could be defined and the program of the State, the counties, and private owners shaped accordingly. In deference to this demand the Commission, on March 10, 1932, approved the establishment of the Chequamegon area, embracing 361,497 acres; the Mondreux area, including 171,832 acres; and the Oconto area, with 203,418 acres. An addition of 68,055 acres to the existing Oneida unit also was approved. These approvals, however, were with the clear understanding that the Commission would not approve the purchase of any lands within the newly created units until such action was warranted by available appropriations and the desirability of the lands in comparison with those in other units.

By unanimous action of the Commission the Secretary of Agriculture was authorized to submit an estimate for an appropriation of \$3,000,000 for the purchase of additional lands for forest purposes during the fiscal year 1934.

At the close of the fiscal year 1932, the situation stood as follows: There were situated in 20 of the States east of the Great Plains a total of 42 separate units of forest management within which purchases of lands for national forest purposes had been sanctioned by the Commission. In 31 of these units, situated in 19 States, there had been purchased or were in process of purchase an aggregate of 4,727,680 acres of land. Within these same units there were other Federal lands, reserved from the public domain, transferred from the Treasury Department and acquired through exchange aggregating 2,503,875 acres; so that the total area under Federal management and control amounted to 7,231,555 acres. To fully accomplish the purposes for which these 31 units were established by placing under Federal ownership all lands therein chiefly valuable for watershed protection or timber production, will require the further purchase of approximately 5,122,266 acres, at an estimated cost of approximately \$19,800,000.

With the exception of a few small tracts of public lands in the Mesaba unit, the remaining 11 units do not yet contain any lands in Federal ownership. In eight of the units conditions are distinctly favorable to purchase, and if funds were available Federal control over considerable percentages could be readily established. In three of the units conditions thus far have been unfavorable to Federal purchases, but are rapidly being modified by economic changes. The circumstances originally dictating the establishment of these 11 units, i.e. their importance as watersheds or sources of timber supply or demonstration forests, have increased rather than diminished in social and economic significance and are believed fully to justify the fruition of the original plan. To that end it will be necessary to purchase approximately 1,828,900 acres of land, at an estimated cost of about \$6,430,000.

The above statements as to additional areas to be purchased and costs thereof relate to the system of purchase units as approved by the Commission. More recent estimates which include desirable extensions of the units would, if approved, entail the purchase of 7,639,700 acres at an estimated cost of about \$30,000,000. Notwithstanding many other demands upon their time, the individual members of the Commission consistently have displayed an active and constructive interest in this work. While the minor details of administrative and executive policy have been left largely to the Forest Service, the broad principles and policies governing the formulation and execution of programs have been established by the Commission. The functions of the Commission have never been performed in a superficial or perfunctory manner and the members of the Commission have been quick to withhold approval from any proposal for purchase of land which, in their opinion, deviated from the letter and spirit of the Weeks law or was deficient in public advantage.

In the course of 21 years over 5,000,000 acres of land have been considered for purchase by the Commission. Of that amount, 4,727,680 acres actually have been purchased or are in process of purchase. Only sound, conservative, and well-established values have been allowed and no accusation of extravagant or unwise use of public funds has ever arisen. On the contrary, the work has commanded respect and confidence in every region in which it has been conducted. In few, if any, other instances of large scale programs of land purchase by or on behalf of the Federal Government have lands been acquired at prices so closely approaching the figures at which private investors could secure the lands by cash purchase. Price levels are now so disorganized and unstable that comparative evaluations are difficult or impossible, but prior to 1929 the conservative evaluation of the acquired lands showed an appreciable margin above their cost of purchase.

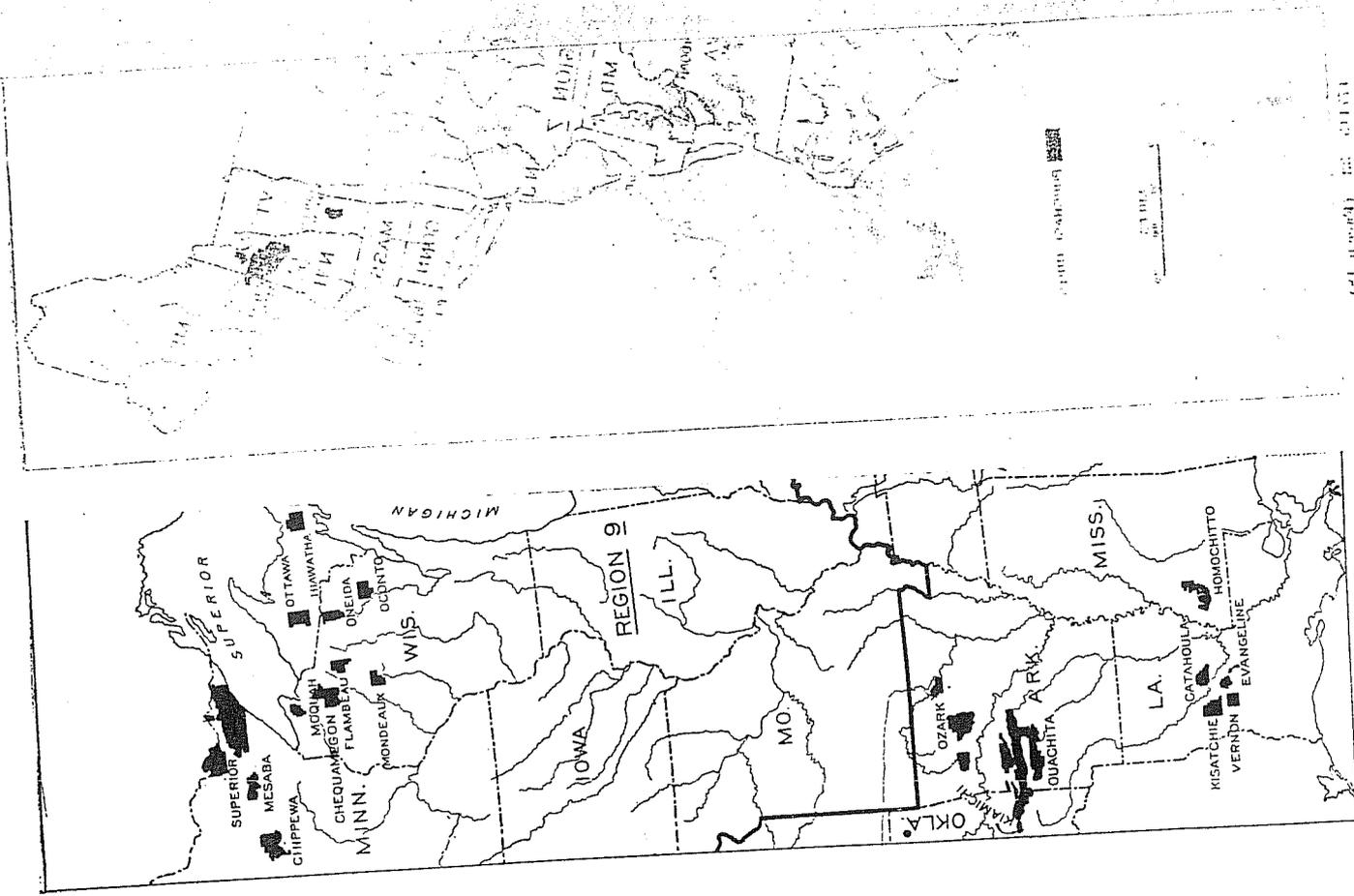


FIGURE 2.

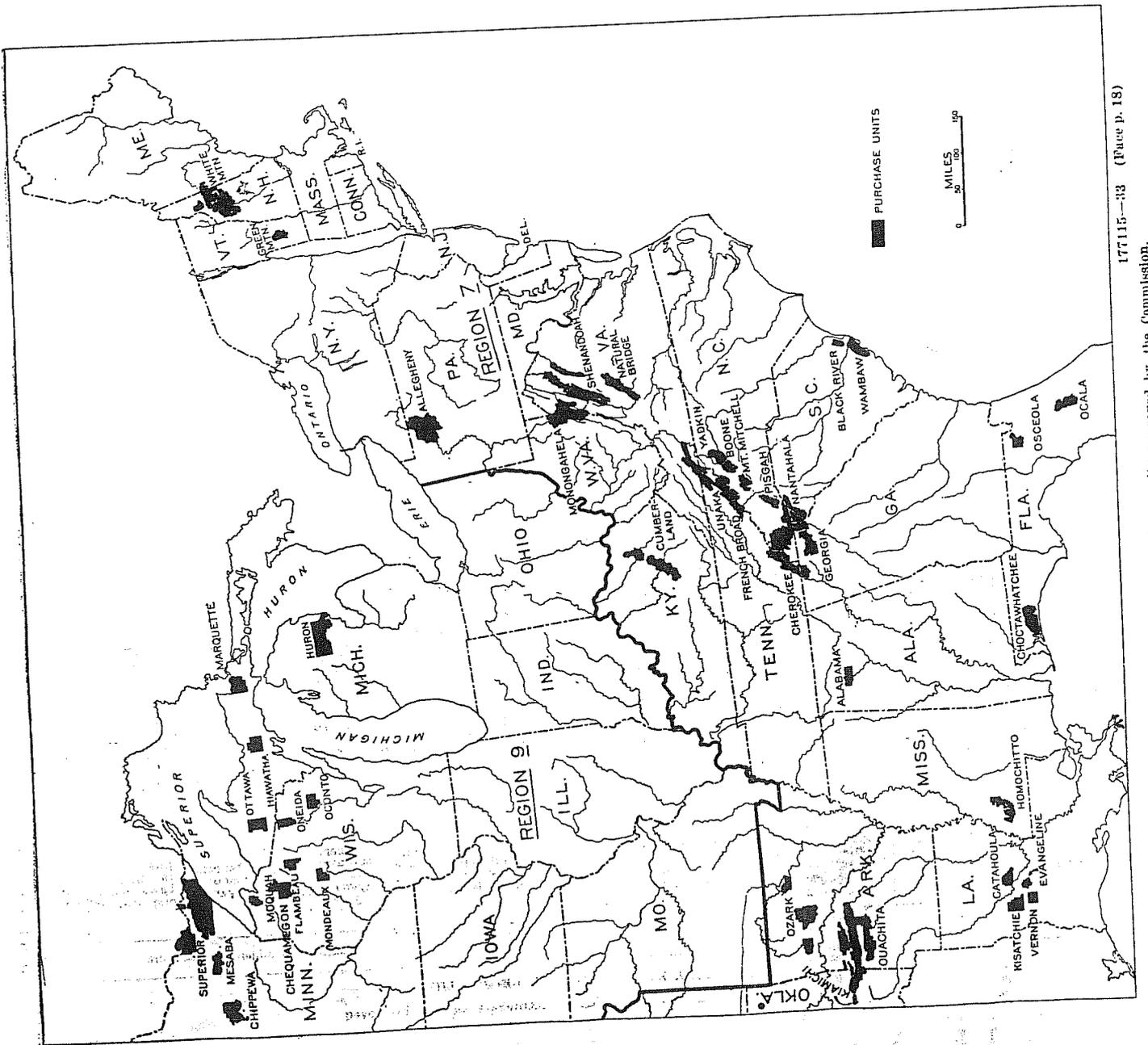


Figure 2.—National forest purchase units approved by the Commission.

TABLE 2.—Federal acquisition program, accomplished and proposed (A) PRIMARILY FOR WATERSHED PROTECTION

Region and State		Number	Acres	Percent	Area purchased or controlled in process of purchase	Ratio, Area purchased to total forest area of State	Rate, Area purchased or controlled in process of purchase to total purchase	Average cost per acre	Total cost of purchase and relation to total expenditure	Addi-tional areas to be ac-quired?	Total then un-managed forest in State	Ratio, Area purchased or controlled in process of purchase to total forest in State	Average cost per acre	Total cost of purchase and relation to total expenditure
NEW ENGLAND		1 Part	53,300	0.23	33,781	0.71	5.74	183,792.06	0.91	19,019	53,800	0.36	109,339.25	
Maine		1 Part	500,956	11.13	301,491	0.71	8.69	346,672.00	20.51	276,245	777,200	17.26	1,667,470.00	
New Hampshire		1 Part	801,900	31.491	31,491	0.07	11.01	4,348,270.27	5.44	193,792.06	19,019	6.00	1,667,470.00	
Vermont		1 Part	102,100	3.90	31,491	0.07	11.01	4,348,270.27	5.44	193,792.06	19,019	6.00	1,667,470.00	
Regional total		2	660,227	2.54	566,227	11.98	8.63	4,888,734.33	23.06	563,773	1,130,000	5.07	4,049,153.75	
ALABAMA		1 Part	660,000	1.48	341,797	1.48	6.37	1,836,683.20	8.66	266,013	607,810	3.94	1,237,692.75	
Georgia		1 Part	580,000	2.14	439,721	2.14	6.30	2,546,007.49	12.00	809,954	1,262,014	4.30	1,409,994.00	
Kentucky		1 Part	471,160	2.81	371,181	2.81	4.79	1,778,723.28	8.39	234,999	607,200	4.83	1,237,692.75	
North Carolina		1 Part	724,340	48.950	49,950	1.03	6.88	287,753.28	1.36	188,170	788,568	1.83	752,690.00	
South Carolina		1 Part	866,300	393,672	393,668	8.33	4.52	1,897,923.67	1.36	394,898	1,110,068	4.49	1,773,082.25	
Tennessee		1 Part	1,244,500	619,825	619,690	13.11	3.67	2,272,324.88	10.72	490,244	1,110,068	4.49	1,773,082.25	
Virginia		1 Part	819,100	336,102	336,102	7.11	3.43	1,152,103.36	6.43	376,155	712,257	3.91	1,469,129.50	
West Virginia		1 Part	819,100	336,102	336,102	7.11	3.43	1,152,103.36	6.43	376,155	712,257	3.91	1,469,129.50	
Regional total		14	6,670,868	2,697,242	2,697,921	50.43	4.62	12,338,123.23	68.19	3,280,881	5,978,123	4.23	14,798,342.00	
OKLAHOMA		1 Part	1,288,920	1,288,920	342,841	7.25	3.44	1,177,665.07	5.56	765,652	2,054,572	9.28	3,105,663.50	
Arkansas		1 Part	2,221,522	61,489	61,489	1.30	1.46	59,663.07	.42	297,000	358,489	3.03	742,600.00	
Missouri		1 Part	344,249	2,565,771	404,330	8.56	3.13	1,287,328.14	5.97	1,062,652	2,413,061	4.08	3,848,163.50	
Regional total		3	2,565,771	1,350,409	2,62	8.62	1,287,328.14	5.97	1,062,652	2,413,061	4.08	3,848,163.50		

Required to complete existing units

Accomplished up to June 30, 1932

Where single units are in two or more States they are counted in each State, but regional totals show the correct number in each region. This column includes proposed extensions of existing units as follows: Green Mountains, 188,000 acres; Mount Mitchell, 2,000 acres; Unaka, 52,000 acres; French Broad, 111,300 acres; Monongahela, 163,600 acres; Kiamichi, 26,000 acres; Hawatha, 118,000 acres; Huron, 1,000 acres; and Ottawa, 90,000 acres.

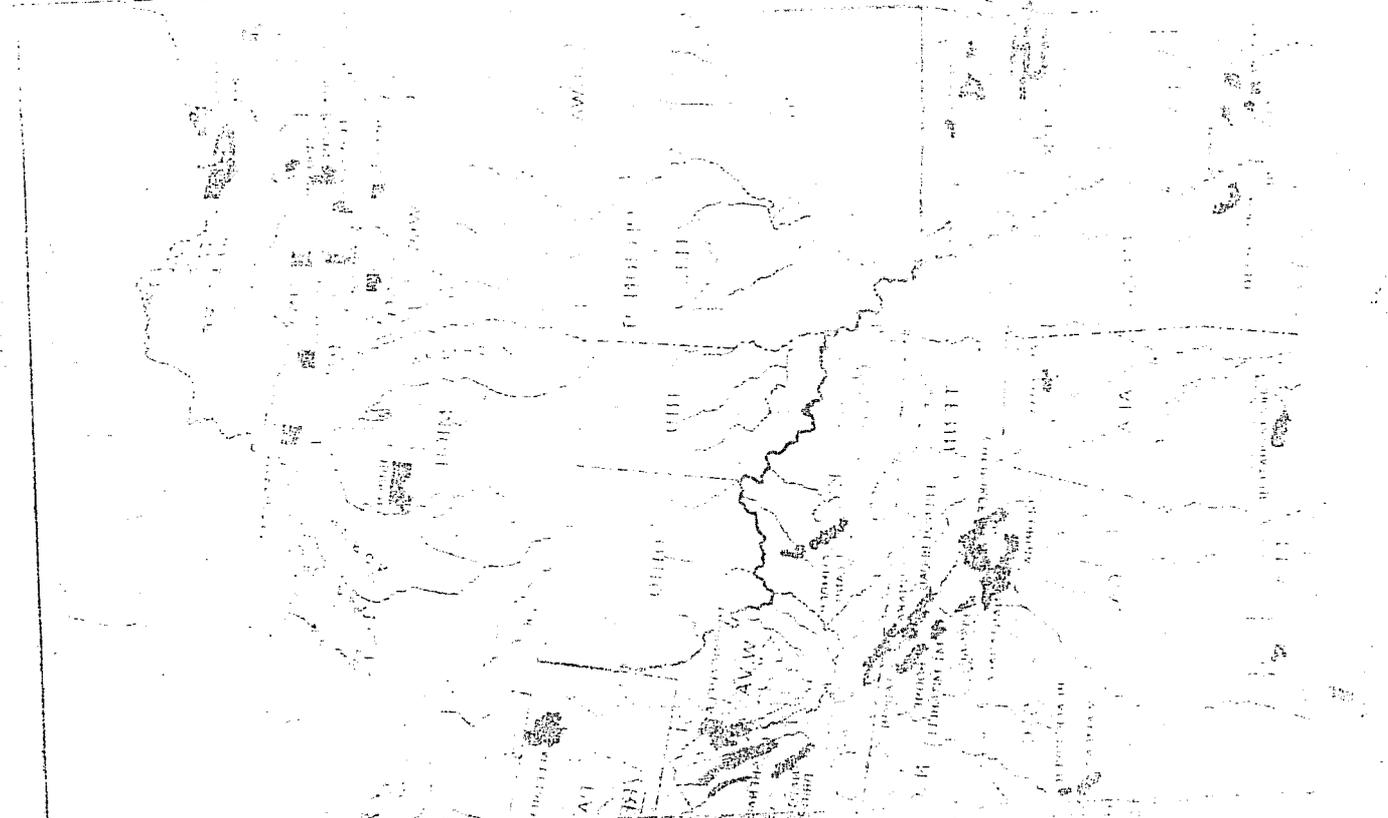


Table 2.—Federal acquisition program, accomplished and proposed—Continued

Region and State	Units established	Gross area	Area fed-erally controlled	Ratio of forest to total area of purchase	Area purchased in process of purchase	Ratio of forest to total area purchased	Average cost per acre	Total cost of purchase and relation to total expenditure	Additional area to be acquired under agreement	Total area then un-managed	Ratio of forest to total area	Average cost per acre	Total cost of purchase and relation to total expenditure	Alabama		Georgia		Florida		Louisiana		Mississippi		Regional total		Total water-shed units									
														Number	Acres	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Alabama	1	106,667	24,675	.23	82,000	77.0	3.65	291,820.80	68,992	89,667	1.49	6.00	874,850.00	0.64	1	106,667	24,675	23.00	1	106,667	24,675	23.00	1	106,667	24,675	23.00	1	106,667	24,675	23.00					
Georgia	3	702,842	84,786	2.48	238,229	6.00	3.95	931,967.73	4.40	138,331	223,126	3.06	3.63	488,688.60	2.74	3	702,842	84,786	1.77	3	702,842	84,786	1.77	3	702,842	84,786	1.77	3	702,842	84,786	1.77				
Florida	4	316,572	61,278	.32	61,278	1.29	4.02	246,044.62	1.16	222,700	283,975	1.49	3.00	667,355.00	1.77	4	316,572	61,278	1.77	4	316,572	61,278	1.77	4	316,572	61,278	1.77	4	316,572	61,278	1.77				
Louisiana	2	175,000								175,000	1.38	6.00	1,050,000.00	2.03	2	175,000		2.03	2	175,000		2.03	2	175,000		2.03	2	175,000		2.03	2	175,000		2.03	
Mississippi	9	1,283,414								530,031	1.82,101	4.12	2,206,043.50	6.54	9	1,283,414		6.54	9	1,283,414		6.54	9	1,283,414		6.54	9	1,283,414		6.54	9	1,283,414		6.54	
Regional total	21	10,696,463	4,717,307	1.86	3,728,083	78.86	16.05	18,832,667.64	88.82	6,171,268	9,888,576	3.90	4.63	23,922,832.05	81.82	21	10,696,463	4,717,307	81.82	21	10,696,463	4,717,307	81.82	21	10,696,463	4,717,307	81.82	21	10,696,463	4,717,307	81.82	21	10,696,463	4,717,307	81.82

(B) PRIMARY TO STIMULATE PRODUCTION OF TIMBER

State	Units	Gross area	Area fed-erally controlled	Ratio of forest to total area of purchase	Area purchased in process of purchase	Ratio of forest to total area purchased	Average cost per acre	Total cost of purchase and relation to total expenditure	Additional area to be acquired under agreement	Total area then un-managed	Ratio of forest to total area	Average cost per acre	Total cost of purchase and relation to total expenditure	Regional total		Total timber units		Grand total									
														Number	Acres	Number	Acres	Number	Acres								
Alabama	1	106,667	24,675	.23	82,000	77.0	3.65	291,820.80	68,992	89,667	1.49	6.00	874,850.00	0.64	1	106,667	24,675	0.64	1	106,667	24,675	0.64					
Georgia	3	702,842	84,786	2.48	238,229	6.00	3.95	931,967.73	4.40	138,331	223,126	3.06	3.63	488,688.60	2.74	3	702,842	84,786	2.74	3	702,842	84,786	2.74				
Florida	4	316,572	61,278	.32	61,278	1.29	4.02	246,044.62	1.16	222,700	283,975	1.49	3.00	667,355.00	1.77	4	316,572	61,278	1.77	4	316,572	61,278	1.77				
Louisiana	2	175,000								175,000	1.38	6.00	1,050,000.00	2.03	2	175,000		2.03	2	175,000		2.03	2	175,000		2.03	
Mississippi	9	1,283,414								530,031	1.82,101	4.12	2,206,043.50	6.54	9	1,283,414		6.54	9	1,283,414		6.54	9	1,283,414		6.54	
Regional total	21	10,696,463	4,717,307	1.86	3,728,083	78.86	16.05	18,832,667.64	88.82	6,171,268	9,888,576	3.90	4.63	23,922,832.05	81.82	21	10,696,463	4,717,307	81.82	21	10,696,463	4,717,307	81.82	21	10,696,463	4,717,307	81.82

Requested to complete existing units

Accomplished up to June 30, 1933

