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The Power Act: Lessons from the Past

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The Policy Analysis Group was established by the Idaho legislature in 1989 to provide objective analysis of the impacts of natural resource proposals. Issue Briefs are timely summaries of research relevant to current natural resource topics.

Introduction

The intertwined history of the Columbia River's salmon and hydropower system can be traced through a long list of ideas, plans, and proposals to recover salmon in a way that preserves economic benefits and ecosystem potential. Despite a 50-year effort to balance salmon and hydropower, population numbers for Snake River salmon have declined to levels that have fisheries scientists, policymakers, and tribal governments publicly speculating on whether recovery is possible. Currently, two of the most ambitious recovery plans in recent memory have been set in motion. The *Northwest in Transition*, proposed by Idaho congressman Mike Simpson, and the *Columbia Basin Collaborative*, under development by the Governors of Idaho, Montana, Oregon, and Washington, are both suggested as regionwide, comprehensive efforts to develop a shared basin wide approach to salmon recovery. Yet we have been here before. Forty years ago, Congress passed the Power Act—a comprehensive, basin wide approach to restore salmon and preserve the economic benefits of the hydropower system. What were the origins of the Power Act, and why did it fail to recover salmon?

The Power Act of 1980

The transformation of the Columbia River into a managed water resource system was a direct response to the socio-economic disasters of the 1930s. Poor and underdeveloped before the Depression, the Columbia River basin was dependent on extractive use of the land for timber, mining, and agriculture. The economic backwardness of the region was exacerbated by a shortage of power necessary to build a stable industrial economy. The development of the Columbia's hydropower potential provided immediate short-term benefits from jobs, and the power to recast the region's social system and economic foundation.[1,2] The post-WWII development and expansion of the hydropower system served to institutionalize the short- and long-term effects of the Depression era choices. It reinforced the existing distribution of costs and benefits, created new winners and losers, and accelerated the discounting of suboptimal ecological outcomes.[3,4] Thus, by the 1970s there was a social, economic, and political equilibrium largely impervious to change.

The specific origins of the Pacific Northwest Electric Power Planning and Conservation Act (PL 96-501) were decisions dating from the 1950s about future electricity demand and supply. An anticipated shortage of electricity led to plans to increase supply by expanding thermal generating capacity. This expansion collapsed in the face of rising construction costs and mandated limits on rate increases included in the original Depression era legislation that authorized Columbia River basin hydropower development. As result, by the early 1970s the regional power system faced forecasts of increased demand and limited flexibility given the long-term carried costs of the failed expansion of thermal generation. The projected outcome was sharply reduced future supplies of electricity to regional preference customers (public utilities) and the likelihood regional investor-owned utilities and direct service customers would be cut off from the Federal Columbia River Power System (FRCPS). These are the dams operated by the Army Corps of Engineers and Bureau of Reclamation, whose power is marketed and managed by the Bonneville Power Administration. Confronted with rising prices and potential electricity shortages, and wanting to avoid an administrative solution determined in Washington, D.C., regional stakeholders looked to Congress for an answer that reflected a Pacific Northwest compromise.[5]

Salmon and the Hydropower System

Fisheries interests saw an opportunity in the institutional flux created by the power system crisis to address the long-term collapse of salmon populations across the Columbia River basin. The decline of salmon in the region was neither a new problem nor one that had lacked attention from resource managers and policymakers. As early as the mid 1800s, when mechanized harvesting and processing

were introduced, state officials, conservationists, and native tribes had raised concerns about declining populations. An effort to sustain salmon runs and compensate for habitat loss through an aggressive hatchery program was successful in maintaining salmon numbers, though greatly diminished, through the first half of the 20th century. Continued over-harvesting and the post-war economic boom—which included hydropower development, increased timber production, expansion of irrigated agriculture, and habitat loss to housing and industrial expansion—led to a precipitous fall in the number of salmon returning. By the 1970s, a resource that once seemed limitless was in seemingly irreversible decline.

The convergence of economic and ecological crises provided an opportunity for Congress to addresses both with one piece of legislation—albeit complicated and ultimately contradictory. At the core of the Power Act, signed in December 1980, was clear intent to add a new system output, salmon recovery, and insure equitable treatment for fish and wildlife protection.[6] By mandating equitable treatment, the Power Act was intended to reorient and reprioritize how and why the FCRPS operated. The requirement to preserve and restore salmon runs, and acknowledgement this would impose costs on electricity consumers, was the first direct challenge to the institutional arrangements and system priorities established during the Depression.

The Limits to Change

Although the primary focus of the Power Act was the regional power system, it is obvious from 40 years on the fisheries provisions of the Act had the greatest long-term disruptive effects. The early hope, however, for recovery of salmon and balanced operational priorities for the FCRPS have proved largely unrealized. The Power Act was expected by many stakeholders to be the recovery plan for salmon populations, or at least lead to such a plan:

> "It called for action . . . and made protection, mitigation and enhancement of fish and wildlife a new major purpose of the hydropower system. [It] accepted the fact that fish measures would impose costs on the hydropower system."[7]

Not surprisingly, the agencies managing the system proved resistant to change in existing priorities and operations. Moreover, the Congressional mandate to change the manner the system operated collided with the potential costs of equitable treatment of ratepayers. The unwillingness or inability to support salmon recovery at the expense of operational changes to the hydropower system was conditioned by two legacy realities.

First, the Power Act left existing institutional arrangements largely intact, with salmon recovery and a new regional oversight entity (Northwest Power Planning Council) overlaid on the existing system. The Council (now Power and Conservation Council) is a combination of shared authority between the member states (Idaho, Montana, Oregon, and Washington) and the federal government. It was given planning and recommendation capacity for power system policy and salmon recovery efforts, but no enforcement authority. The outcome was a more complex and, for many stakeholders, frustrating mix of mandates and institutional ambiguity. This ambiguity was furthered by the separation of FCRPS operations from salmon recovery actions. Power production and salmon recovery have under the Power Act generally been considered as distinct objectives. Moreover, recovery actions have been considered an additional output whose effects on hydropower (and irrigation) have been purposely limited.[8] Changes in power operations, such as drawdowns to increase instream flows for salmon recovery (reducing the amount of water available for electricity production), have been managed not with salmon recovery as *the* priority but as *a* priority equal to limiting politically unacceptable higher costs for ratepayers.

Second, salmon recovery has been viewed as a technical and engineering problem best addressed

through add-ons to mitigate adverse consequences. This has meant technology fixes to minimize salmon losses through upgrades to many of the major facilities. These "tech fixes" have included by-pass infrastructure such as fish ladders and transportation of smolts downstream via barge or truck. Extensive hatchery operations have been maintained or expanded, most recently as part of restoration efforts by tribal governments. Finally, flow augmentation, increased water flow to ease downstream passage for smolts, has become the primary form of mitigation by operational add-on. These actions have proved politically practical. The costs of mitigation efforts have been "out of sight" at the individual ratepayer level. Further, they created a perception of a possibility of long-term salmon recovery while leaving FCRPS operations and priorities largely unchanged.

Conclusion

For nearly 40 years the central question in the Columbia River basin has been "what do we want the river to be." The Power Act was a moment of uncertainty when change appeared tantalizingly possible to advocates of salmon recovery. New ideas and preferences challenged, yet ultimately failed to displace, long established institutional priorities and the entrenched distribution of costs and benefits. *Northwest in Transition* and *Columbia Basin Collaborative* are still years away from moving from idea to reality. The lag between choosing what to do and actual shovels in the ground, may be where salmon recovery in the Snake River passes from possible to unlikely. As both plans are considered and tested by regional policymakers, stakeholders, and populations it is worth remembering the Power Act and what its history can suggest about how difficult it can be to recast the status quo.

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