I. INTRODUCTION

Black’s Law Dictionary defines “natural resource” as “1) Any material from nature having potential economic value or providing for the sustenance of life,
such as timber, minerals, oil, water, and wildlife; [and] 2) Environmental features that serve a community’s well-being or recreational interests, such as parks.”¹ As a gift from nature, these resources are a huge fortune. How to utilize them best is an extremely important issue.

There are plentiful resources in China.² The Chinese have been living on this land for thousands of years while relying on these natural gifts. With the development of society and the state, the current legal system for utilizing natural resources cannot fulfill the needs of the public. Unaffordable fees for public use, conflicts of interest between natural resources agencies, and unbalance between utilization and preservation are just a few common problems reflecting the need for natural resources law reform in China.³ The public trust doctrine (“PTD”) may be a potential avenue for resolving these problems.

The PTD provides that public trust lands, waters, and living resources in a state are held by the state in trust for the benefit of all of the people, and establishes the right of the public to fully enjoy public trust lands, waters, and living resources for a wide variety of recognized public uses.⁴ In this trust relationship, the state is the trustee of these trust lands, waters, and resources, and the public, all of the people, is the beneficiary. The state utilizes these lands, waters, and resources according to the public interest.⁵

This paper discusses whether the PTD could help resolve problems in Chinese natural resource management. Part I introduces the theory and history of the PTD. Part II describes problems that China faces in natural resources management, and analyzes what factors result in these problems. Part III argues that the PTD is a potential resolution for solving these problems. Finally, Part IV considers the feasibility of bringing the PTD to China.

II. BACKGROUND: INTRODUCTION TO THE PTD

A. Roman Law

The theory of the PTD is ancient. It extends back to the Institutes and Journal of Gaius, a second-century Roman jurist who studied and transcribed the natural

¹ Black’s Law Dictionary 1127 (9th ed. 2009).
² E.g., following resource reserves have been proved by 2011: Coal 1377.89 billion tons; Petroleum 3.24 billion tons; Iron 74.39 billion tons; Timber resources 14.913 billion steres. The Ministry of Land and Resources of the PRC, Chinese Land and Resources Report (2012). There are 2325.67 billion steres water resources in 2011. THE MINISTRY OF WATER RESOURCES OF THE PRC, CHINESE WATER RESOURCES REPORT (2011).
³ See infra Part II.
⁴ Coastal States Organization, Inc., Putting The Public Trust Doctrine To Work 3 (2nd ed. 1997) [hereinafter COASTAL STATES ORGANIZATION].
law of Greek philosophers.\(^6\) By the sixth century, the Institutes of the Byzantine emperor Justinian were based, often verbatim, upon Gaius’ work.\(^7\) Justinian’s Institutes include the first recorded public right to full use of the seashore, in a commonly quoted section of Book II of the Institutes that describes the public nature of rivers, ports, and the seashore:\(^8\)

By the law of nature these things are common to all mankind—the air, running water, the sea, and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided that he respects habitations, monuments, and the buildings, which are not, like the subject only to the law of nations.\(^9\)

\section{B. Common Law}

From its Roman roots, the PTD lasted through the centuries, eventually carrying over into English common law. From the time of Lord Hale, the English sovereign owned the sea, its underlying soils, and the tidelands and held them in trust for the public uses of navigation, commerce, and fisheries.\(^10\) The sovereign could pass title to public trust lands to private individuals, but the grantee was required to take such lands subject to the traditional rights of the public.\(^11\)

The United States succeeded this trust system from English common law. \textit{Arnold v. Mundy}, an 1821 case out of New Jersey, was the first recorded application of the PTD in an American court.\(^12\) The \textit{Arnold} court stated that submerged properties “where the tide ebbs and flows . . . are common to all the people.”\(^13\) The court continued, stating that the people of New Jersey had the right to this tidal area, and that even the Legislature could not “make a direct and absolute grant, divesting all the citizens of their common right.”\(^14\) Thus, the \textit{Arnold} court expressly recognized the public trust doctrine as a viable tenet of the common law.\(^15\)

In 1876, United States Supreme Court affirmed the common law PTD in

\(^{6}\) Coastal States Organization, \textit{supra} note 4, at 1.
\(^{7}\) \textit{Id.} at 4.
\(^{8}\) \textit{Id.}
\(^{9}\) \textit{Id.} (quoting T. Sandars, \textit{The Institutes of Justinian} 73 (1867)).
\(^{10}\) Shively v. Bowlby, 152 U.S. 1, 13 (1894).
\(^{11}\) Janice Lawrence, \textit{Unprecedented Extensions of the Public Trust}, 70 Calif. L. Rev. 1138, 1140 (1982).
\(^{12}\) \textit{Arnold v. Mundy}, 6 N.J.L. 1 (N.J. 1821).
\(^{13}\) \textit{Id.} at 12.
\(^{14}\) \textit{Id.} at 13.
\(^{15}\) \textit{Public Trust Doctrine—Beach Access—The Public’s Right to Cross and to Use Privately Owned Upper Beach Areas}, Note, 15 Seton Hall L. Rev. 344, 351 (1985) [hereinafter Beach Access].
Barney v. Keokuk. Then, in 1892, United States Supreme Court delivered its landmark PTD decision in Illinois Central Railroad v. Illinois (“Illinois Central”). Illinois Central revitalized the PTD in American law and reaffirmed the inherent limitations on a legislature’s ability to alienate public trust property. As the Court proclaimed, a state’s title to land beneath navigable waters is “held in trust for the people of the State” and “[t]he State can no more abdicate its trust over property in which the whole people are interested, . . . than it can abdicate its police powers in the administration of government and the preservation of the peace.” Accordingly, the only grants of public trust lands that were held to be legitimate were those that improved the public’s ability to use the waters, or those that did not “substantially impair the public interest in the lands and waters remaining.”

C. New Public Trust

In 1970, Joseph Sax issued The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention. In this paper, Sax sought to extend the role of the traditional PTD. In his view, “[o]f all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive legal approach to resource management problems.” Sax’s visionary words symbolize the beginning of what has become the new public trust movement in America in the last half-century. While the traditional doctrine evolved to protect common access to the tidelands for commercial purposes, the new PTD heralded conservationist principles and became a basis for natural resource conservation.

Since that time, many statutes and state constitutions (including those of Pennsylvania, Hawaii, Florida, and Montana) affirmed the public trust. Multiple courts also adopted the interpretation of the PTD heralded by Sax, most

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16 Barney v. Keokuk, 94 U.S. 324 (1876).
18 Beach Access, supra note 15, at 354.
19 Illinois Central, 146 U.S. at 453.
20 Beach Access, supra note 15, at 354.
22 Id. at 474
24 See e.g. Article I, section 27 of the Pennsylvania State Constitution was adopted in 1971, and provides that: “The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania’s public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.” PA. CONST. art. I, §27.
famously the California Supreme Court in *National Audubon Society v. Superior Court*, which will be discussed infra.\textsuperscript{25}

The PTD is an ancient theory. In different times and for different nations, it has played diverse roles. It may also play a valuable role for China.

III. CONFUSION BETWEEN PRIVATE AND PUBLIC: THE PROBLEM IN CHINESE NATURAL RESOURCES UTILIZATION

The Chinese constitution states: “All mineral resources, waters, forests, mountains, grassland, unreclaimed land, beaches and other natural resources are owned by the state, that is, by the whole people, with the exception of the forests, mountains, grasslands, unreclaimed land and beaches that are owned by collective in accordance with the law.”\textsuperscript{26} Therefore, the whole people are the owners of significant natural resources, and the Chinese government has the power and duty to manage and utilize natural resources as the agent of the people. It is a huge power and a heavy duty. In practice, there are multiple problems when it comes to carrying out this responsibility. Three of these deserve heightened attention:

The Chinese government operates some resources as for-profit businesses. As a result, fees for public use are often significant, and may be prohibitively expensive for poorer individuals seeking to access these resources. This problem it is especially obvious in some public parks. In 2013, a survey by Zhongguo Qingnian Bao, a famous Chinese newspaper, showed that admission fees of many parks were over twenty or thirty dollars, and eighty-seven percent of respondents thought that admission fees were too expensive.\textsuperscript{27}

Sometimes, the Chinese government is not only the supervisor, but also the manager of these public resource “businesses.” For example, there are several valley authorities in China. These authorities have both the power to supervise use of water resources and the power to develop water conservancy projects.\textsuperscript{28} This arrangement presents potential conflicts of interest. For instance, while water conservancy projects can bring economic benefits by generating electricity, sometimes a decrease in electricity generation is needed in order to control flood or drought. Because the responsibility of supervision may affect economic benefits, this is a conflict.

The utilization and the preservation of natural resources are not balanced. The government is often focused on how to utilize China’s natural resources to

\textsuperscript{25} *Nat’l Audubon Soc’y v. Superior Court (National Audubon)*, 33 Cal. 3d 419 (1983).

\textsuperscript{26} XIANFA art. 9 (1982).

\textsuperscript{27} Xiang Nan(向楠), 83.9% Shoufangzhe Renwei Woguo Gonggong Jingdian Menpiao Taigui (83.9%受访者认为我国公共景点门票太贵), Zhongguo Qingnian Bao (中国青年报), April 09, 2013, at 07.

\textsuperscript{28} See Xiao Zesheng (肖泽晟), Gongwu Yanjiu (公物法研究) (2009), at 135 (describing broad government authority to manage natural resources, including the authority to conserve).
develop the economy, but neglects environmental protection. For example, some lands with beautiful views have been sold and used for commercial real estate development without enough environmental assessments. These decisions have grown the Chinese economy but at the cost of environmental protection.

One common factor may underlie these problems is that the boundary between state public and private property is not clear. The Chinese government controls huge amounts of land, which can be broadly divided into two categories. One is the private property of the state. These lands operate like state-owned enterprises, with the government having the right to utilize them to generate revenue. The other is the public property of the state, such as natural resource lands, which in theory are not a tool for generating revenue. Nowadays, the difference of these two types of government property is not clear. A theory is needed to distinguish them. Moreover, developing a legal system for public lands is an important step for ensuring that China’s natural resources are responsibly managed. This is where the PTD may come into play.

IV. THE PTD AS A POTENTIAL RESOLUTION

As a theory that the state hold lands, waters, and resources for public interest, the PTD may be a potential resolution for these natural resource problems. The following sections describe the multiple benefits that the PTD would bring to Chinese natural resource management.

A. Clarify the Public Nature of Natural Resources

As Professor Sax stated, “certain interest are so intrinsically important to every citizen that their free availability tends to mark the society as one of citizens rather than of serfs . . . . [C]ertain interests are so particularly the gifts of nature’s bounty that they ought to be reserved for the whole of the populace.” For these resources, their nature is public, and they should be reserved and used for the whole people.

Under the PTD, the public nature of natural resources is inherent. Given that natural resources exist openly for the collective benefit of society, the state does not have a right to restrict the utilization of and access to these resources to

29. See Xinghua She (新华社), Haianxian Bei Tiancheng Le “Fanganxian” (海岸线填成 “房岸线”), Yangcheng Wanbao (羊城晚报), June 27, 2011, at 3.
30. It should be noticed that not all state-owned enterprises are the private property of the state. For example, some natural sources enterprises and public service enterprises should be regarded as public property. For a description of this categorization, see Xiao Zesheng (肖泽晟) Shehui Gonggong Caichan Yu Guojia Sichan De Fenye —Dui Woguo “Ziran Ziyuan Guoyou” De Yizhong Jieshi (社会公共财产权的分野—对我国“自然资源国有”的一种解释), 6 Zhejiang Academic Journal (浙江学刊第6期), 32 (2007).
31. Sax, supra note 21, at 484.
certain individuals. By this logic, it is only fitting that natural resources be considered public property. Natural resources are different from other state private property, and thus need be managed, reserved and used under different rules. Therefore, the state cannot use natural resources arbitrarily as an owner; instead, it must utilize natural resources prudently and loyally as a trustee.

B. Restrict Government Power, Including Administration and Legislation

Under the PTD, although the state owns the natural resources within its borders, it must utilize those resources in line with public interests. Three types of restrictions on governmental authority are often thought to be imposed by the public trust: first, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses.33

These restrictions protect natural resources for public purposes. They also prevent administrative action or legislation meant to abandon these purposes when they conflict with other state interests, such as economic development. Imposing the PTD restrictions on the Chinese government may aid in addressing the natural resource management problems previously described.

The PTD would compel the government to make sure that natural resources are available for use by the general public. The government has a responsibility as trustee to make it possible for people to enjoy these resources.34 Unaffordable access fees function to prohibit access to natural resources, particularly among the poor, rendering these resources inaccessible despite being nominally “open.” Adopting the PTD would provide a basis for arguing that public access fees must be relatively affordable if the access is to be considered truly “public.” Ideally, a government bound to its trustee duties under the PTD would set access fees such that would allow everybody, the rich and the poor, to have the same chance to enjoy these resources.

Adopting the PTD would also restrict the sale and development of state property. Under the PTD, the government must utilize natural resources for public purposes and cannot sell them or use them for other purposes, unless the action does not substantially impair the public interest.35 For example, suppose that Chinese developers wanted to buy a parcel of government land near a scenic lake to build a luxury residential complex. The sale presents a tremendous financial opportunity for the government, which could gain significant revenue from this transaction. However, if the sale would impair the environment of the lake, it may not be permitted under the PTD. Thus, the PTD would restrict the

33 Id. at 477.
34 GLICKSMAN & COGGINS, supra note 5, at 105.
35 Beach Access, supra note 15, at 354.
government from alienating public lands for business purposes where the benefits conflict with the public interest.

When government administrative action or legislation violates these restrictions on access fees and property alienation, the PTD would also provide a basis for courts to condemn the government action as an abdication of its commitment to the public interest.36 As Professor Sax clarified, the PTD is not a mechanism for the courts to render policy decisions about the use of public lands, but it does serve as “a means for ensuring that those who do make the decisions do so in a publicly visible manner.”37 Ultimately, the restrictions imposed on the Chinese government by the PTD would be meaningful only insofar as courts uphold these restrictions and recognize the role of the State as trustee of its natural resources on behalf of the people.

C. Restrict Private Use

The PTD not only restricts the State, it also restricts private use for public interests. Under the PTD, the benefits derived from natural resources belong to all of people instead of certain individuals or groups. National Audubon Society v. Superior Court (“National Audubon”), a foundational PTD case out of the California Supreme Court, can be seen as a good example.38 China may learn much from this case. Its lessons are particularly relevant to Chinese cities experiencing conditions similar to those faced by City of Los Angeles leading up to the case—rapid expansion coupled with a strained water supply.

In National Audubon, the Los Angeles Department of Water and Power (“DWP”) was in charge of supplying water to the City of Los Angeles. Early in the twentieth century, it became clear that the city’s anticipated needs would exceed the water available from local sources, so DWP took several measures to acquire water from other sources.39 One of these measures was diverting streams previously flowing into California’s Mono Lake.40 As the result of DWP’s actions, the level of the lake dropped so significantly that it imperiled the local fishing industry, wildlife, and scenic beauty. On these grounds, an environmental organization brought suit to enjoin the diversion on the theory that the lowering of the water level violated the public trust doctrine by damaging the public’s trust interest in the lake land itself.41 Accepting this argument, the California Supreme Court held that appropriative water rights were subject to a public right if necessary to protect trust resources.42

36 Sax, supra note 21, at 509.
37 Id. at 502.
38 Nat’l Audubon, 33 Cal. 3d 419 (1983).
39 Id. at 426-27.
40 Id. at 424.
41 See id.
42 Id. at 447; see also Glicksman & Coggins, supra note 5, at 105-06.
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When Chinese cities find that rapid expansion has strained its supply of water, they often take measures similar to DWP’s diversion action in National Audubon. However, under the PTD, the lands beneath streams and water bodies are not private property belonging to individuals or cities, but are the public property of all people. Because China currently has no similar standard for protecting the public interest, natural resources are at risk of being appropriated for the benefit of the few over the many, just like in National Audubon. Adopting the PTD would secure Chinese natural resources by requiring that the government make resource management decisions in line with the public interest.

V. FEASIBILITY

As already discussed, bringing the PTD to China would be useful for managing current problems in Chinese natural resources. This section addresses the feasibility of adopting the PTD in China, and how to address the hurdles to adoption that may emerge.

A. The Constitutional Issues

The PTD emerged in America from the common law and has since been formalized in various terms in the constitutions of multiple states. Some states write the PTD into the constitution directly, such as Pennsylvania, Florida, and Hawaii. In other states, courts deduce the PTD from pre-existing constitutional clauses. For example, the California constitution declares that...
public trust resources must be put to “beneficial use.” The California Supreme Court in National Audubon construed the constitutional requirement that the state ensure “beneficial use” of water resources to mean that “[t]he human and environmental uses of Mono Lake—uses protected by the public trust doctrine—deserve to be taken into account.”

This technique of constitutional interpretation may be used similarly to elicit the PTD from the constitution of China. While the current Chinese constitution does not provide for the PTD explicitly, it is possible that the PTD may be construed by combining several clauses.

The Chinese Constitution Article 9 states:

All mineral resources, waters, forests, mountains, grassland, unreclaimed land, beaches and other natural resources are owned by the state, that is, by the whole people, with the exception of the forests, mountains, grasslands, unreclaimed land and beaches that are owned by collective in accordance with the law. The state ensures the rational use of natural resources and protects rare animals and plants. Appropriation or damaging of natural resources by any organization or individual by whatever means is prohibited.

These clauses could provide the foundation for the PTD in Chinese law. In particular, “rational use” may be construed as a constitutional mandate similar to the analysis of “beneficial use” in National Audubon. Moreover, the clarification that “owned by the state” means “by the whole people” supports an interpretation that the relationship between the Chinese people and its natural resources is such that the principles of PTD can be applied.

Chinese Constitution Article 26, section 1 states:

47 “It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained” CAL. CONST. art. X, §2.

48 33 Cal. 3d at 452; see also Ryan, supra note 23, at 479.

49 XIANFA art. 9 (1982).
The state protects and improves the environment in which people live and the ecological environment. It prevents and controls pollution and other public hazards.\(^{50}\)

If the previous clauses establish the PTD in Chinese law, Article 26, section 1 provides strong support for extending the PTD’s scope to environmental protection. The constitutional responsibility to protect and improve the environment imposes on the State the duties ascribed to a government as trustee under the PTD. Coupled with the “rational use” requirement, this clause may be read to require the Chinese government to take environmental factors into consideration when making natural resource management decisions.

B. Systemic Hurdles to Adoption

1. Powerful Government

The Chinese government is powerful, with heavy influence in economic, political and social areas. As such, it is possible that restricting government power as already described would be resisted by the state. However, the principle that the legal system exists to restrict government power is a consensus in China, as shown both in academic research\(^{51}\) and government reports.\(^{52}\) The restrictions that the PTD would impose on the Chinese government may be seen as logical extensions of this principle, based in the language of the Chinese constitution. Thus, while the restrictive nature of the PTD may initially appear to be at odds with Chinese society, such restrictions ultimately align with a foundational principle of Chinese law.

2. Relatively Weak Jurisdiction

As already described, the PTD is developed by common law in America. This cannot be done in China. Because China is a civil law country, there is no case law in China, and Chinese judges do not have the power to make law.\(^{53}\) However, the PTD could be developed in China by statute, just as it has developed in America through its codification in state constitutions and statutes.\(^{54}\)

Moreover, comparing legislation and administration, Chinese jurisdiction is

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50 XIANFA art. 26 (1982).
51 See, e.g., Xingzheng Fa Yu Xingzheng Susong Fa (行政法与行政诉讼法) (Jiang Ming’an ed. 2011).
53 See Fali Xue (法理学), (Zhang Wenxian (张文显) ed. 2007), at 97.
54 See supra notes 44-46.
relatively weak and most disputes would not be solved by jurisdiction. Instead, it will be dealt with by administration, which has wider and more effective power in practice.

In the United States, the PTD “is not so much a substantive set of standards for dealing with the public domain as it is a technique by which courts may mend perceived imperfections in the legislative and administrative process.” This is not enough in China. For civil law system and relative weak jurisdiction, Chinese PTD should be not only a process post-supervision but also a substantive per-supervision.

To ensure that the Chinese adoption of the PTD is robust, Chinese PTD should be absorbed into the most supreme laws, such as the constitution. China is a unitary state without a separation of powers between the states and the federal government. However, apart from the national congress, other local congresses and administrative agencies (both central and local) also have some legislative power. As such, the national congress should write the PTD into national law to prevent the passage of local and administrative legislation breach the principles of the PTD. In this way, the PTD would become the substantive standard for local and administrative law, and would ensure that local governments and government agencies conform their natural resource management decisions to the principles of the PTD.

3. Excessive Emphasis on Economic Development

In China, economic development is arguably the most important task since reform and opening up. Undoubtedly China has achieved much: more than 500 million people have been lifted out of poverty in the last two decades, and the proportion of people who are poor in China decreased from 60.2 percent in 1990 to 13.1 percent in 2008. Given that economic development has improved the lives of many, preventing the economic use of natural resources through the PTD may be met with resistance. However, with the society’s growth, citizens and public officials are aware of the risks that unchecked development poses to the environment. This awareness may provide the political will for adopting PDT as an ideal middle road that allows for certain economic development while ensuring that natural resources are preserved and managed responsibly.

55 See Xingzhengfa Xue Shiye Xia De Gongfa Quanli Lilun Wenti Yanjiu (行政法学视野下的公法权利理论问题研究), (Xu Yixiang ed. 2014), at 131.
56 Sax, supra note 21, at 509.
57 See XianFa Xue Daolun (宪法学导论), (Zhang Qianfan ed. 2004) at 252, 260.
58 In China, it is named the National People’s Congress of the PRC.
59 Province People’s Congress of the PRC are local congresses of special note.
61 E.g., Wen Jiabao stated that “We will thoroughly implement the basic state policy of conserving resources and protecting the environment.” Supra note 52.
VI. CONCLUSION

That the boundary is not clear between state public property and state private property is an important factor that may contribute to current problems in Chinese natural resource management. The public trust doctrine may solve these problems by clarifying the public nature of China’s natural resources and restricting both government power and individual use for the sake of public interests. Moreover, a constitutional basis for adopting the PTD does exist. Adopting the PTD would present multiple problems. However, none of these problems are insurmountable, and the potential challenges do not lessen the potential benefits that the public trust doctrine could bring to Chinese natural resource management.

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62 Supra Part II.
63 Supra Part III.
64 Supra Part IV.