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February 1, 2023

Senator Patrick Page Cortez
President of the Senate
P.O. Box 94183
Baton Rouge, Louisiana 70804

RE: SENATE RESOLUTION NO. 171 OF THE 2014 REGULAR SESSION

Dear Mr. President:

The Louisiana State Law Institute respectfully submits its annual report to the legislature relative to developing a comprehensive Water Code.

Sincerely,

A handwritten signature in blue ink that reads "Guy Holdridge".

Guy Holdridge
Director

email cc: David R. Poynter Legislative Research Library
drplibrary@legis.la.gov

Secretary of State, Mr. R. Kyle Ardoin
admin@sos.louisiana.gov

**LOUISIANA STATE LAW INSTITUTE
WATER CODE COMMITTEE**

**2023 ANNUAL REPORT TO THE LEGISLATURE
IN RESPONSE TO SR 171 OF THE 2014 REGULAR SESSION**

Relative to the development of a comprehensive Water Code for Louisiana

Prepared for the
Louisiana Legislature on

February 1, 2023

Baton Rouge, Louisiana

**LOUISIANA STATE LAW INSTITUTE
WATER CODE COMMITTEE**

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Mark S. Davis, Reporter
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SENATE RESOLUTION NO. 171

BY SENATOR CLAITOR

A RESOLUTION

To urge and request the Louisiana State Law Institute to create a Water Code Committee.

WHEREAS, Senate Concurrent Resolution No. 53 of the 2012 Regular Session of the Legislature requested the Louisiana State Law Institute to conduct a study on surface water and groundwater law in Louisiana; and

WHEREAS, on April 4, 2014, the Louisiana State Law Institute submitted its report to the Legislature in response to Senate Concurrent Resolution No. 53; and

WHEREAS, such report discusses at length the issues, problems, and questions arising from the present state of Louisiana law concerning surface water and groundwater, and concludes by stating:

"The time has come for water law reform in Louisiana. It is recommended that a Louisiana State Law Institute Water Code Committee be created and invested with the responsibility of continuing to study Louisiana's current treatment of running surface water and groundwater, with a view towards the development of a comprehensive Water Code that integrates all of Louisiana's water resources.

The Louisiana State Law Institute recommends that the proposed Water Code Committee be an interdisciplinary committee, composed of academicians, practitioners, scientists with expertise in hydrology, and government representatives with expertise in Louisiana's water resources and the state's existing administrative system of water management.

Current Louisiana law provides insufficient guidance on the rules that govern the nature and scope of riparian and groundwater rights. Louisiana needs a Water Code that integrates all of its water resources, a Water Code that will enable Louisiana to successfully manage and conserve its water resources as it prepares to face the inevitable challenges that lie ahead. Therefore, it is recommended that the legislature implement the foregoing recommendations and that it entrust this important project to the Louisiana State Law Institute."

THEREFORE, BE IT RESOLVED that, in accordance with the above recommendation, the Senate of the Legislature of Louisiana does hereby urge and request the Louisiana State Law Institute to create a Water Code Committee in order to develop proposed legislation establishing a comprehensive Water Code that integrates all of Louisiana's water resources.

BE IT FURTHER RESOLVED that such Water Code Committee shall be an interdisciplinary committee and shall include academicians, practitioners, landowners, scientists with expertise in hydrology, and government representatives with expertise in

SR NO. 171

ENROLLED

Louisiana's water resources and the state's existing administrative system of water management.

BE IT FURTHER RESOLVED that such Water Code Committee shall provide annual reports to the Legislature not later than February first of each year indicating its status in developing a comprehensive Water Code for Louisiana, and including as appropriate, specific recommendations in the form of proposed legislation to achieve establishment of a comprehensive Water Code that integrates all of Louisiana's water resources.

BE IT FURTHER RESOLVED that a copy of this Resolution be transmitted to the director of the Louisiana State Law Institute.

PRESIDENT OF THE SENATE

February 1, 2023

To: Senator Patrick Page Cortez
President of the Senate
P.O. Box 94183
Baton Rouge, Louisiana 70804

**2023 ANNUAL REPORT TO THE LOUISIANA LEGISLATURE
IN RESPONSE TO SR NO. 171 OF THE 2014 REGULAR SESSION**

Senate Resolution No. 171 of the 2014 Regular Session urges and requests the Louisiana State Law Institute “to create a Water Code Committee in order to develop proposed legislation establishing a comprehensive Water Code that integrates all of Louisiana’s water resources.” The resolution also states that “such Water Code Committee shall be an interdisciplinary committee and shall include academicians, practitioners, landowners, scientists with expertise in hydrology, and government representatives with expertise in Louisiana’s water resources and the state’s existing administrative system of water management.”

In fulfillment of this request, the Law Institute created a Water Code Committee and placed it under the supervision of Reporter Mark S. Davis, Director of the Tulane Institute on Water Resources Law and Policy. Members of the Committee also include professors and other academicians who both teach and study water law, practitioners in the area of water law, government representatives with expertise in Louisiana’s water resources and existing system of water management, and others.

Senate Resolution No. 171 also requires the Committee to “provide annual reports to the Legislature not later than February first of each year indicating its status in developing a comprehensive Water Code for Louisiana, and including as appropriate, specific recommendations in the form of proposed legislation to achieve establishment of a comprehensive Water Code that integrates all of Louisiana’s water resources.” Extensive background research concerning the Committee’s charge has been conducted and compiled, and the Committee has met to develop the project and engage in the research done on several key topics.

Background and Vision

Rising seas, collapsing coasts, and ever-evolving demands on water resources for energy development, coastal restoration, healthy coastal ecosystems, increasing human consumption, and a myriad of other uses are forcing Louisiana to reassess its relationship with water and to revisit the legal and policy architecture of water management. Through the efforts of entities such as the Louisiana Water Resources Commission (LWRC), the Coastal Protection and Restoration Authority (CPRA), the New Orleans Sewerage and Water Board, and the Louisiana State Law Institute (LSLI), great strides have been made in understanding and explaining the vital role that water plays in the ecologic, cultural, and economic vitality of the state and the nation. Bold plans and programs have been developed to sustainably promote that vitality, but those plans and programs all depend on the availability and management of water resources whose legal status is nebulous at best. The need to clarify the legal status of water and its uses has been recognized in

recent reports by the LWRC (2012 and 2013) and the LSLI (2014). Most recently, the Louisiana Legislature called for the LSLI to develop a “Water Code” for Louisiana (SR 171 (2014)). This Water Code Committee was formed in response to that call.

This Committee is charged with developing a model water code for the state of Louisiana that is both grounded in traditional water rights and responsibilities (public and private) and responsive to the evolving dynamics of water supplies and water uses. We will approach water comprehensively, recognizing that groundwater, surface water, and diffuse water are related. Doing this will require not only an appreciation of traditional water law and emerging trends but also a respect for the hydrologic and ecologic aspects of our water resources. For these reasons there must be a multifaceted and multidisciplinary aspect to this Committee’s work. In short, the Committee has been asked to develop a water code that is purpose driven, scientifically informed, and legally comprehensive.

Fortunately, the Committee has access to resources and technical expertise in the public, academic, and private sectors that it can draw on over the course of the project to greatly enhance its capacity to carry out its work.

Guiding Principles

Experience teaches that the complex task of developing a water code is much more manageable if it is guided by some core understandings and principles, particularly those which are already features of state or federal law. With that in mind the Committee’s work will be informed by these guiding principles:

1. Management of Louisiana’s waters is at a point of decision. Only a concerted effort will stem the degradation of Louisiana’s coast and position the state as a whole to benefit from its most abundant resource.
2. Appreciation of the increasing dynamism of the hydrologic system must be integral to legal and planning infrastructure.
3. Natural processes must be hewed to as closely as possible, and natural cycles and processes can be maximized to aid operations and maintenance of infrastructure.
4. Limited availability of water must be acknowledged as a potential constraint on system management and rehabilitation.
5. The code will seek to achieve ecosystem sustainability and diversity while providing interchange and linkages within the hydrologic system.
6. Future rising sea levels and climate changes must be acknowledged and incorporated.
7. Displacement and dislocation of resources, infrastructure, and possibly communities may be avoidable under some scenarios. In the course of restoring a sustainable balance to Louisiana, sensitivity must be shown to those who may be adversely affected by the implementation of the code. Careful consideration must be paid to existing water related rights, uses, and duties.
8. The rehabilitation of the Louisiana hydrologic system will be an ongoing and evolving process.
9. Coordination with other states and federal interests is essential to ensure that the Code will be most conducive to maximizing effectiveness.

Overview of the Committee's Task and Progress

As mentioned earlier, this project is multidisciplinary and multi-institutional and needs to reflect a range of local, national, and relevant international experience and expertise.

The point of departure for the Committee was the 2014 report of the LSLI Water Law Committee and the 2012 and 2013 reports of the LWRC. The Committee continues to coordinate closely with LWRC's ongoing work to draw from its efforts (such as commissioning a framework for developing a water budget for the state) and to gain perspective from the Commission's diverse membership. The Committee is also endeavoring to coordinate closely with the CPRA since the 2017 Master Plan is fundamentally a water management plan with the force of law. To facilitate that coordination, Committee Reporter Mark Davis was appointed to the CPRA Master Plan Steering Committee on behalf of the LSLI. During the past year the Reporter was also a member of the LWRC, which affords a vehicle of coordinating the work of the Committee and the LWRC, as well as being a member of the Governor's Advisory Commission on Coastal Protection, Restoration and Conservation.

The Reporter and his supporting team from the Tulane Institute on Water Resources Law and Policy have met several times with senior staff from the Governor's Office of Coastal Activities to discuss water law issues and the Committee's progress. We have included the General Counsel of the Capital Area Ground Water Conservation Commission and the Legislative Auditor's Office in our Committee's work. Over the course of the Committee's existence we endeavored to keep legislative legal counselors abreast of our work including inviting them (and all Committee members, of course) to join in our meetings with water managers in Arkansas, Mississippi, Minnesota, and Virginia as well as with Louisiana's water management agencies. The Reporter has been working closely with staff of the LSLI to synthesize the experience and knowledge gained from comprehensive research done by the Committee with Louisiana's water needs and water law traditions to chart a course to actually drafting a proposed code. The Reporter is deeply grateful for that assistance.

The Committee is using the Model Regulated Riparian Code (developed by the American Society of Civil Engineers) as a starting point as the attached memorandum lays out. Because of Louisiana's unique legal traditions and its complex relationship with water as source of value and risk no model developed elsewhere can serve as anything more than a guide. As the memorandum makes clear, for Louisiana to embrace a comprehensive approach to water stewardship will require increasingly robust data about water availability, quality, and use. It will also need to provide for water to be used in ways and in places that the state currently has little or no experience with. Finally, it will need to anticipate a shift to greater regional approaches to water management, especially with respect to waters we share with other states. For that reason the Committee has consciously considered the laws and water management experiences of Arkansas and Mississippi, states with which the state shares many surface and subsurface water and both of which have much more experience with statewide water law and management than Louisiana.

The Reporter and the Committee have been working with a constant eye on emerging water trends both within and outside the state. In setting this Committee on this task, the Legislature wisely

foresaw the rapidly approaching time when Louisiana’s water resources will be envied and coveted. Over the past year, multiple ideas for diverting water from Louisiana via the Mississippi, Atchafalaya, and Sabine Rivers have surfaced to supplement or substitute for the dwindling water supplies in the Southwest. Those states clearly see the value of the waters with which we are blessed, and the Committee urges the Legislature to always keep that value in mind. Water has been and is Louisiana’s greatest natural resource, though it has not always been treated with respect. As America—indeed the world—enters a time in which access to water for all purposes will determine who and what places will prosper, Louisiana will be faced with water management opportunities and challenges unlike any that it has faced before. The Committee intends that its work will help put the state in the best position possible to manage its waters wisely and comprehensively so its most prosperous days may yet be ahead.

Action Over the Past Year

John Nickelson named to Committee. To facilitate the work of the Committee, the Law Institute appointed Mr. John Nickelson of Shreveport to be a member of the Committee.

Meetings: The Committee met twice in 2022, on January 18 and May 20.

Research. The Committee’s work over the past year focused on the following areas:

1. Deeper investigation into the administrative demands of comprehensive water management as it might be undertaken in Louisiana. This research drew heavily on the experiences of Arkansas and Mississippi which share not only many water resources with Louisiana but are states with relatively small populations and budgetary capacity. Key issues explored by the Committee were (a) the acquisition of data needed to manage water resources; (b) the factors considered in regulating water use; (c) enforcement of state water laws; and (d) the degree to which ground water and surface water are effectively integrated. There are no “best” ways of dealing with those issues and the Committee will be refining its work in those areas in the months ahead. That said, the Reporter believes it is important to note that it will ultimately be necessary for whatever agency(ies) is charged with administering a water code to promulgate rules and regulations that allow the code to be effectively administered given the realities of fiscal, personnel, and legal constraints.

2. The Committee continued to investigate how a comprehensive approach to water management could best be built on Louisiana’s tradition of reasonable riparian rights for surface waters and correlative rights for ground water. This is reflected in the attached memorandum.

3. The Committee has undertaken a thorough synthesis and analysis of the Model Riparian Code, including an assessment of where its framework is (and is not) appropriate for use in the Committee’s forthcoming drafting efforts. The attached memorandum is the product of this undertaking, and provides a detailed overview of the Model Code, complete with comparative analysis of its water management strategies in relation to those of states comparable to Louisiana. The Committee plans for this memorandum to serve as the starting point and foundation for the drafting of its proposed Louisiana Water Code.

Coordination. In addition to carrying on the work called for in SR 171, the Committee and the Reporter have had to engage and coordinate with other ongoing water-related initiatives on an ongoing in the state. This has been necessary to both avoid conflicts and to create/optimize synergies. The Committee is committed to working with the CPRA, Department of Natural Resources, the Office of Conservation, the Governor’s Office of Community Development, the Attorney General, key legislative staffers, and others to more fully discuss the Committee’s work and to coordinate our collective work on water governance.

Outreach. As more people become interested in the state’s water resources and the Committee’s work, the Committee has received occasional requests to provide information to professional and civic organizations. The restrictions on gatherings that were in place from 2020 through 2022 constrained the Committee’s outreach efforts but we remain committed to being as open and accessible as possible and we hope that 2023 will be more conducive to that. The decision by the LSLI to allow some meetings to be held virtually and/or outside of Baton Rouge should greatly facilitate access to the Committee’s work.

Conclusion

The Committee is approaching a climax and the Reporter anticipates that the Committee will have a draft code available for discussion in the coming months, based in large part on the synthesis and analysis of the Model Code contained in the attached memorandum. As directed, the Committee will continue to provide annual reports to the Law Institute for its review and transmission to the Legislature indicating the status of this project. A final report will be submitted to the Legislature once the Committee has developed a comprehensive Water Code for Louisiana and has received approval of the project from the Council of the Law Institute.

Acknowledgments

The Committee and the Reporter would like to acknowledge and thank the Baton Rouge Area Foundation, the Greater New Orleans Foundation, the Walton Family Foundation , the Louisiana Sea Grant Program, the McKnight Foundation, Tulane Law School and the Tulane Institute on Water Resources Law and Policy, and the staff of the Louisiana State Law Institute for their assistance. It has made a huge difference.

Respectfully submitted,

Mark S. Davis, Reporter
Water Code Committee
Louisiana State Law Institute

M E M O R A N D U M

TO: Members, Water Code Committee

FROM: Nick Kunkel, *Staff Attorney*

RE: Model Regulated Riparian Code Summary, Analysis, and Comparison

- I. Introduction
- II. Permit Scheme, generally
- III. Permitting Scheme, specifically
- IV. Administration of Permitting Scheme
- V. Additional Rules Applicable Independent of Permitting Requirements
- VI. Conjunctive Management

I. Introduction

As the LSLI Water Code Committee undertakes the task of drafting a comprehensive water code for the state of Louisiana, it is imperative that the Committee identify both the goals it wishes to achieve and the decisions it will need to make in doing so. And if the Committee is to use the Regulated Riparian Model Code as a “starting point” for its drafting efforts, it in turn becomes imperative that the Committee understand the structure and function of the Model Code as it relates to these goals. But while the Model Code may be useful as a starting point, it is only that—while an understanding of the Code might be sufficient for the Committee to determine *whether* a departure from the Model Code is appropriate, a determination of *how* or *to what extent* the Committee should depart from the Code requires more than a single data point. To that end, lessons gleaned from the approaches taken by neighboring states—Mississippi and Arkansas in particular—can prove useful. Accordingly, this memorandum will attempt to summarize and assess the systems implemented by the Model Code as they relate to the Committee’s objectives, and will do the same with respect to those employed by Mississippi and Arkansas insofar as they are similarly informative. It will highlight both the relative strong points and shortcomings of the Model Code in the hopes of giving the Committee an idea of which aspects can safely be borrowed, which need to be tailored, which need to be improved, and which need to be jettisoned.

II. Permit Scheme, generally

At its most basic level, a permitting scheme for water withdrawal and usage can be structured in either of two general manners: The scheme can either (1) start with the general premise that the withdrawal and/or use of water is lawful without a permit, and build in on top of that general permission a series specific exceptions for circumstances where a permit *is* required; or (2) start with the general premise that withdrawals are *unlawful* without a permit, and carve out from that general prohibition a series of specific exceptions for circumstances where a permit is

not required. Notably, it is entirely possible to reach precisely the same regulatory “end point” of rules regardless of which structure is selected as a starting point. Indeed, if one conceives of the restrictiveness of a permitting system as a simple linear scale ranging from 1 to 10, with 1 representing a system whereby no withdrawals of water require a permit and 10 representing a system whereby *all* withdrawals of water require a permit, both of the aforementioned structures would be equally capable of producing a system that landed at 1 on the scale, 10 on the scale, or anywhere in between—at least from a purely academic perspective. In practice, though, the structure of the permitting system can have a significant impact on how effectively it can be implemented and administered. The choice between these alternate structures will be one of the first the Committee must make.

As for the choice made by the Model Code, its “most fundamental departure from the common law of riparian rights is the requirement that,” as a general rule, “no water is to be drawn without a permit.”¹ This general rule, of course, is subject to several exceptions, each of which must be and is stated specifically.² Essentially, this rule-exception structure creates a system whereby a permit is required for any withdrawal not specially exempted, ensuring that there will be no unanticipated withdrawals that “slip through the cracks”. Mississippi utilizes the same structure, prohibiting as a general rule the use of water unless and until a permit has been issued,³ then carving out certain exceptions.⁴ Notably, however, Mississippi’s exceptions are far narrower than those provided by the Model Code,⁵ resulting in a permitting scheme that is essentially too extensive to be effectively administered. Responsible for over 25,000 active water use permits, Mississippi’s regulatory body has eschewed its authority to impose mandatory reporting requirements as a permitting condition.⁶ Instead, reporting is voluntary and permit compliance goes largely unenforced.⁷ By contrast, Arkansas applies the opposite rule-exception structure—requiring a permit only for specific stated uses. Arkansas water law also differs from Mississippi in that it *does* impose reporting requirements. Ironically, however, Arkansas’s efforts to bolster its water management through self-reported water usage data are similarly ineffective: Whereas Mississippi’s overly expansive permitting scheme makes enforcement of reporting requirements prohibitively onerous, Arkansas’s general *lack* of water-use regulation renders it largely unable to ensure the accuracy of reported numbers.⁸

¹ Model Code Official Commentary at Ch. VI (hereinafter “Commentary”). *See* 6R-1-01 (“No person not specifically exempted by this Code shall make a withdrawal from the waters of the State without first having obtained a permit as provided in this Code”).

² These exceptions are discussed in greater detail in Part III.

³ *See* Miss. Code § 51-3-5(1) (“No person who is not specifically exempted by this chapter shall use water without having first obtained a permit as provided herein and without having otherwise complied with the provisions of this chapter, the regulations promulgated hereunder and any applicable permit conditions.”)

⁴ *See* Miss. Code § 51-3-7(1) (exempting from the permitting requirement, for example, “a person using water for only domestic purposes”).

⁵ For example, Mississippi’s permitting requirement does not apply to withdrawal for domestic use or withdrawal from a well under a certain size, nor does it apply to withdrawals “from an existing impoundment on a continuous, free flowing water course.” Miss Code § 51-3-7. *See also* Miss. Admin. Code, Pt. 7, Ch. 1, Rules 1.2C, 1.3A, 1.4A.

⁶ Sam Bruguera, Memorandum to Water Code Committee re: Mississippi Water Law (hereinafter “Bruguera Memo”).

⁷ Bruguera Memo. The most significant effort to enforce permit terms began in 2011 when certain permit holders were required to begin self-certifying their compliance with Acceptable Agricultural Water Efficiency Practices.

⁸ Bruguera Memo. Frequently, water users in Arkansas deliberately overreport their usage in an effort to ensure that they will not be limited in the future. In fact, there is allegedly a common belief that if one lowers their usage in a given year, they will no longer have a right to exceed that most recent usage in the following year; thus, constituents often report the same water use every year in spite of changing conditions.

The lesson, here, is that the structure and scope of a given permitting scheme can significantly impact the extent to which it can be implemented and administered effectively. A highly robust system may reach all of a State’s desired goals in theory, but its reach may exceed its grasp: Given finite resources, even the most extensive permitting program conceivable is susceptible—even likely—to fail if it requires spreading those resources too thin. This highlights the paramount importance of ensuring that a permitting scheme is robust *in the right way*. In other words, dedicating fewer resources to less important goals will allow the administering agency to dedicate more resources to more important goals. This in turn means that, once the program’s goals have been identified, the permitting scheme should be designed so as to be applicable to the water withdrawals and uses that are most likely to impact these goals.

III. Permitting Scheme, specifically

The substantive contours of a permitting system—in principle—are defined primarily by two features: (1) the scope of the applicability of the permitting requirement, and (2) the standards by which permitting decisions are evaluated. These sets of rules are the defining characteristics by which a permitting system can be tailored to achieve its desired ends; the particular considerations embedded within them will determine the impact of the entire system for better or worse. Accordingly, it is imperative that overall water-management priorities be reflected in the design of these components. The Model Code’s decisions in this regard are thus informative—but before they are examined, it is worth fleshing out what, specifically, is accomplished by each of the two above rule sets.

Notably, the applicability of the permitting requirement does not in and of itself limit withdrawal or use of water. As compared to a withdrawal or use for which a permit is *not* required, it can certainly be said that one requiring a permit is disfavored—but such a use *is* still allowed, so long as a permit is obtained. In other words, the permitting requirement itself does not serve the purpose of precluding harmful withdrawals. Rather, it serves essentially as a filter for determining which withdrawals and uses are evaluated and monitored; the *standards for permitting decisions* are the details that make up the rule set that serves to actually prevent harm. Accordingly, the permitting requirement itself should be designed so as to cast a (reasonably) wide net for withdrawals and uses with the *potential* to have a high impact with respect to the State’s water management goals; from there, the standards applicable to permitting decisions should be designed to prevent those high-impact uses from having a negative impact.

A. Applicability/Scope of the Permitting Requirement

There are a number of considerations and factors that determine the scope and applicability of a permitting requirement. First, the requirement can be made applicable specifically to either uses or withdrawals—or, generally, to both.⁹ Second—and most importantly—the applicability of

⁹ As discussed to some extent above, the Model Code does not do a particularly good job of drawing this distinction. Although Section 6R-1-01 does state explicitly that no person “shall make a *withdrawal* from the waters of the state” except pursuant to a permit, certain listed exemptions from this rule are based on categories of use and categories of source. *See* Commentary at 2R-2-13 (“Nonconsumptive *uses* of water do not require a permit under the Regulated

the permitting requirement can be made dependent on a range of factors, considerations, and decision-binaries, including but not limited to: (1) the quantity of water at issue; (2) the quality of water at issue; (3) the category of use, based on (a) location, (b) nature, or (c) impact; and (4) the category of source, based on (a) size, (b) location, or (c) nature.

Traditionally, a riparian scheme differentiates and prioritizes uses based on their location: Landowners whose property adjoins a watercourse have the right to make any reasonable use of that water on the riparian tract.¹⁰ Further, traditional riparianism generally considers uses on land not contiguous to the water source to be inherently unreasonable.¹¹ In addition to regulating certain riparian uses by subjecting them to permitting requirements, the Model Code departs significantly from traditional riparianism by “repeal[ing] the common law [riparianism] rule that limited lawful uses of water drawn from a watercourse to riparian lands.”¹² Instead, the Code “places non riparian ... uses on an equal footing with the formerly favored uses[,]”¹³ choosing to “disregard[] artificial boundaries drawn on land in favor of” using natural boundaries such as a single watershed.¹⁴ Restrictions on interbasin transfers, however, will be discussed later.

In lieu of the traditional riparian scheme, the Model Code imposes a permitting requirement that is applicable without consideration for the distinction between on-tract and off-tract usage. The primary exemption from the permitting requirement is instead based on the size of the withdrawal, with the Model Code exempting all withdrawals that do not exceed 100,000 gallons per day.¹⁵ The commentary to the Model Code also provides for an exemption based on the impact of the use, noting that “nonconsumptive uses of water do not require a permit.”¹⁶ A

Riparian Model Water Code”) (emphasis added) and 3R-1-03 (discussing the exemption of certain “small water sources” from both permitting and other requirements based on “the size of the water basin”) (emphasis added). It is the opinion of the Staff Attorney that such distinction should either be clearly drawn or clearly not drawn—the Model Code’s lack of clarity and consistency on this and related points represents suboptimal drafting at best and an active substantive flaw at worst. It is likewise the opinion of the Staff Attorney that making the permitting requirement applicable to a given set of *withdrawals*—rather than *uses*—is the most sensible drafting choice for several reasons: First, while it is both logical and perfectly feasible to subject a particular *withdrawal* to the permitting requirement *based on* an intended use, the temporal ordering of events dictates that the reverse does not hold: At the time of a given (significant) withdrawal, the corresponding use is already known but has not yet occurred—but at the time of a given *use*, the withdrawal is an event that has already come and gone. Accordingly, the time of the *withdrawal* makes more sense as the time at which the applicability of the permitting requirement is determined: This configuration allows for the effective management of both withdrawal *and* use under a single scheme, whereas making the permit requirement applicable instead to a given set of *uses* would by definition ensure that withdrawals go unregulated. Second, as they relate to and affect the base-level goal of *management of water resources*, (significant) withdrawals of water will generally be more impactful than the uses to which that water is put once it has been withdrawn. And third, as between withdrawals of water on the one hand and *actions taken with water that has already been withdrawn* on the other, it makes more sense for non-Water Code regulation to be made applicable to the latter than the former. Accordingly, for ease of understanding, the remainder of this memorandum will generally ignore this distinction in favor of conceiving of permitting requirements as being applicable to *withdrawals*, except where context dictates otherwise. The Committee should bear in mind that the actual text of the Model Code may not reflect precisely this same conception in all cases. The Committee should further bear in mind that the applicability of the permit requirement to withdrawals rather than uses is not a universal trait of all permitting systems.

¹⁰ Cf. La. Civ. Code art. 657.

¹¹ Commentary at Ch. II, Pt. 1.

¹² Commentary at 2R-1-02.

¹³ Commentary at 2R-1-02. *See also* 2R-1-02.

¹⁴ Commentary at Ch. II, Pt. 1.

¹⁵ 6R-1-02.

¹⁶ Commentary at 2R-2-13. Curiously, this exception does not appear anywhere in the actual text of the Model Code. It is not readily apparent from where this concept is supposed to emanate.

“nonconsumptive use” is defined by the Code as “a use of water ... in such a manner that it is returned to its waters of origin at or near its point of origin without substantial diminution in quality or quantity and without exacerbating a low flow condition.”¹⁷ Finally, the Model Code provides *de facto* exemptions from permitting requirements for certain categories of source—in particular, transboundary sources governed by superior bodies of law and certain “small water sources” that “originate[] on a person’s property”.¹⁸

But what about the other possible determining factors listed above? Although “[o]ther regulated riparian statutes exempt uses for particular purposes, particularly for domestic and agricultural uses[,]” the Model Code “does not provide a special exemption for domestic uses[.]”¹⁹ Notably, however, such uses are almost certainly “covered by the volumetric exemption provided in the Code.”²⁰ This is a good illustration of both the conception of the permitting requirement itself as a filtering tool and the intent that should underlie a determination of its scope: There is no need to exempt two categories of withdrawal if one wholly subsumes the other. Further, in this instance, a fairly *subjective* category is subsumed by an entirely *objective* category, alleviating the administrative burden inherent in making, adjudicating, and enforcing subjective determinations.

Mississippi is one such state that specifically exempts withdrawals of water to be used for domestic purposes from its permitting requirement.²¹ It also sets out a second, distinct exemption based on similar volumetric considerations as the Model Code—but unlike the Model Code, Mississippi’s exemption is tied to well-size rather than the actual quantity of water withdrawn.²²

¹⁷ 2R-2-13. This term is intended to be expanded upon via regulation.

¹⁸ See 3R-1-02 and 3R-1-03. While the exemption of these sources from the Code’s permitting requirement is certainly *intended* by the drafters, their actual exemption is less clear. This exemption is characterized above as “*de facto*” because these provisions do not actually deal explicitly with the permitting requirement; rather, they describe certain sources that are “exempted from allocation” under the Code. The aforementioned lack of clarity stems from the fact that the Model Code never actually defines “allocation” or describes the result when a given source “is not subject to allocation under this Code,” instead opting to address the topic only in the official Commentary. For its part, the Commentary sets out both that “[n]o permit ... is required for withdrawals from waters exempted from allocation” and that the exemption of a source from allocation goes further than mere exemption from the permitting requirement, as “waters exempt from allocation cannot be regulated by State Agency” *at all* save for a few limited purposes. Commentary at 3R-1-03 and 6R-1-01. As with the purported exemption for nonconsumptive uses, however, the actual text of the Model Code contains no statements that correspond with this commentary.

Unfortunately, this is not the only confusion owing to these particular provisions: Note also the odd construction of § 3R-1-03, which provides an exception to the general rule set out by § 3R-1-01 that “all waters of the state are subject to allocation” under the Code. In particular, § 3R-1-03 provides that “a surface water source that originates on a person’s property is *not* subject to allocation under th[e] Code if” (1) the source is below a certain size, and (2) “the water is used on the tract of land on which it originates.” Importantly, these provisions do not deal with the question whether a particular *withdrawal* or *use* is subject to the Code’s permitting requirements; rather, they govern whether a *source itself* is subject to *the Code generally*. Given that 3R-1-03 sets out to describe a certain *type of source* to which the Model Code is generally inapplicable, it seems odd that this description would incorporate reference to a feature that is, by its very nature, *not* a characteristic inherent to *any* source. This is a drafting decision akin to a sommelier telling you that the type of wine that pairs best with your dinner is the third glass poured from a given bottle. The effect is something of a Schroedinger’s Cat situation—with respect to a properly-situated source of the proper size, the applicability of § 3R-1-03 (and thus the applicability of the Code itself) cannot *possibly* be determined unless one is currently observing the tract. In other words, there is no static answer to the question whether a such a source is subject to allocation under the Model Code.

¹⁹ Commentary at 6R-1-02.

²⁰ Commentary at 6R-1-02.

²¹ Miss. Code § 51-3-7(1).

²² Miss. Code § 51-3-7(1). In particular, “[n]o permit [is] required for any use of water obtained from a well with a surface casing diameter of less than six (6) inches[.]” It should be noted, here, that the Mississippi statute being

In light of the foregoing discussion, it is easy to identify at least one drawback inherent in this second exemption: Presumably, it captures largely the same sources as the domestic-use exemption, thereby creating an potentially unnecessary point of evaluation and increasing administrative burden without a corresponding water management benefit. But this is not to say that Mississippi's well-size exemption, taken alone, is without its upsides: Insofar as a given jurisdiction wishes to use withdrawal volume as a criterion for the applicability of its permitting requirement, well size is arguably preferable to the Model Code's use of volume withdrawn per day. For one, a well-size threshold selects for effectively the same characteristic and reaches essentially the same outcome as the Code's gallons-per-day threshold, both ensuring that withdrawals of potentially-impactful quantities of water will be subject to mandatory permitting. And for two, the well-size threshold accomplishes this goal by way of a standard that allows for permitting determinations to be made on the basis of a criterion that is static, unequivocal, and immediately-quantifiable: A given well-head—indeed *any* given well-head—can be immediately and definitively categorized as either bigger or smaller than the stated threshold, and this categorization is not subject to fluctuation. By contrast, a determination under the Code's gallons-per-day threshold requires continuous data intake and is subject to constant change, ultimately presenting problems similar to those discussed above with respect to sources “exempted from allocation.”²³ Thus, the well-size criterion is likely easier to manage in a data-poor environment such as that facing the Committee and whatever agency is ultimately tasked with administering its Code.

referenced actually governs groundwater withdrawals, whereas riparianism deals generally with surface water. Notably, the Model Code does not distinguish between surface water and groundwater withdrawals, a paradigm the implementation of which the Reporter has identified as a goal for the Committee. This distinction, and the Code's decision to eschew it, is discussed in greater detail—along with the concept of “conjunctive management”—in Part VI of this memorandum. The relevant detail at issue, however, is the objective nature of the exception, rather than its applicability to groundwater. To the extent that this exception is insusceptible of being applied to surface water withdrawal, conjunctive management would likely require the implementation of an analogous exception applicable to surface water withdrawal. In any event, the present discussion is not intended to devise specific exceptions but rather to conceive of the manner in which they should be thought about.

²³ See n.10, *supra*. Indeed, one must actually observe the withdrawal—and in this instance, observe the withdrawal for an extended and in some cases indeterminate period—in order to determine whether it is subject to the Code's permitting requirement. Further, Section 6R-1-02's reference to “withdrawal of less than 100,000 gallons per day” is worded such that it can plausibly be read as either a volume threshold or a *rate* threshold. Even setting aside the question of which is the proper reading, issues abound under either. If the language is read as a volume threshold, the resulting applicability of the permitting requirement would be clearly inequitable, subjecting a hypothetical individual who makes a one-time single-day withdrawal of 101,000 gallons but otherwise operates at 1,000 gallons per day to mandatory permitting but exempting an individual whose withdrawal rate is a consistent 99,000 gallons per day for 365 days per year. And if it is read as a rate threshold, then a number of as-yet unanswered questions follow with respect to the length of the term of measurement and the mechanism by which measurements for such period would be collected in the first place. This latter issue further serves to highlight something of an order-of-operations problem created by the gallons-per-day threshold: Withdrawals in excess of 100,000 gallons per day do not actually require a permit until *after* they have already occurred. The Model Code's Commentary purports to address this issue, stating that “persons who are currently using less than 100,000 gallons per day but who expect, within the reasonably foreseeable future, to pass that threshold will then have to obtain a permit.” Commentary at 6R-1-02. Once again, however, this principle is not contained anywhere in the actual text of the Code.

Ultimately, many of the foregoing issues can be addressed satisfactorily by regulation. The most basic shortcomings of the gallons-per-day threshold, however, are more difficult. By its nature, the administration of a permitting requirement made conditional on this criterion will be onerous relative to comparable criteria, requiring ongoing data intake, continual review of determinations, and, above all, some mechanism by which to ensure that data is both forthcoming and accurate. Importantly, such mechanism would need to be made applicable even to withdrawals for which permits are not required (or not *yet* required)—rendering its administration even more difficult.

By contrast to the Model Code’s departure from the traditional riparian preference for on-tract uses, Arkansas *does* base the applicability of its permitting requirement on location of use—distinguishing explicitly its treatment of riparian and non-riparian uses in its permitting system. In particular, Arkansas requires a permit only for the use of water on land that is not contiguous to the source—in other words, non-riparian uses.²⁴ Notably, *all* proposed withdrawals and diversions for non-riparian use require a permit, *irrespective of volume*. Although the establishment of a preference for riparian use is a reasonable goal, the vast breadth of this particular requirement likely represents an instance where the extent of the administrative burden outweighs the benefit of the rule. Further, as will be discussed in Part III(B), *infra*, there are a number of other, less burdensome ways to establish such a preference.

B. Permitting Standards & Terms

Whereas the general applicability of a permitting requirement serves as the “net,” cast to identify potentially high-impact withdrawals, the actual standards for permitting decisions and permit terms are the primary drivers of the stated goals. In particular, the decision whether to grant a permit is the actual mechanism by which those goals are furthered. A State seeking primarily to prevent pollution would prioritize the maintenance of their waters’ purity in their permitting standards. Likewise, a State concerned with the depletion of its water resources would emphasize the preservation of current levels. In essence, permitting standards and terms will determine which potentially high-impact withdrawals are permitted and thus create a hierarchy of preferences.

i. “Reasonable Use”

The Model Code’s list of permitting standards begins first with “the most basic standard, that any proposed use must be reasonable.”²⁵ “Reasonable use” is defined by the Code as “the use of water, whether in place or through withdrawal, in such quantity and manner as is necessary for economic and efficient utilization without waste of water, without unreasonable injury to other water right holders, and consistently with the public interest and sustainable development.”²⁶ This specific standard—just one of five listed in 6R-3-01(1)—is so paramount to the operation of the Code’s entire permitting system that the Code dedicates the entire following Section to expounding the criteria that the administering agency are required to consider in evaluating whether a proposed use is reasonable.²⁷ The drafters even go so far as to acknowledge that “the full meaning of the

²⁴ See generally Arkansas Natural Resources Comm’n Rules for the Utilization of Surface Water, Section 304.1 *et seq.* (hereinafter “ANRC Rules”). It is notable that Arkansas’s permitting system is confined entirely to regulation. The only water-related activity for which Arkansas provides a statutory permitting requirement is the construction of certain dams. See Ark. Code § 15–22–210.

²⁵ Commentary at 6R-3-01. See 6R-3-01(1)(a).

²⁶ 2R-2-20. “Sustainable development” is defined by the Model Code as the integrated management of resources taking seriously the needs of future generations as well as the current generation, assuring equitable access to resources, optimizing the use of non-renewable resources, and averting the exhaustion of renewable resources.” 2R-2-24.

²⁷ See 6R-3-02 (“Determining Whether a Use is Reasonable”). Taken together, these criteria essentially boil down to a consideration of the likely impact of the withdrawal and use on the given water source, weighted for the relative importance and utility of that source, in relation to the necessity and utility of the withdrawal and use.

concept of reasonable use,” even taken alone, “perhaps exhausts all relevant standards for the issuance of a permit.”²⁸

The Code’s emphasis on “reasonable use” is unsurprising, given that it is “the traditional criterion for resolving conflicts over water use under common law riparian rights [schemes.]”²⁹ In particular, among the several components of the Code’s “reasonable use” definition, the component that is both most important and most traditionally riparian is the prevention of “unreasonable injury”³⁰—which the Code defines as “an adverse material change in the quantity, quality, or timing of water available for any lawful use caused by any action taken by another person if” that action fails one of two basic tests for reasonableness.³¹ This definition “recapitulates the definition of unreasonable injury found in innumerable cases applying common law riparian[ism].”³²

Despite these specific similarities and the general familiarity of the concept of reasonable use, however, the “Code incorporates th[is] core of the common-law of riparian rights ... without necessarily accepting the particular details of the caselaw[.]”³³ And the ways in which the Model Code standard of “reasonable use” differs from the traditional riparian standard are noteworthy. For one, the Model Code does away with the fundamental “feature of traditional riparian law that ... uses on land that w[as] not contiguous to the water source ... [a]re inherently unreasonable.”³⁴ Instead, “[t]he Code places non-riparian [] uses on an equal footing with the formerly favored [riparian] uses” and treats “[l]ocation of use [a]s simply one factor of many[.]”³⁵ Further, “reasonable use” under the Model Code differs from the traditional riparian standard in the time, place, and manner in which it is adjudicated. Unlike traditional riparianism, which employs a subjective inquiry whereby “reasonable use” is determined by asking “whether one use [i]s ‘more reasonable’ than a competing or interfering use,”³⁶ the Model Code gauges reasonableness by an objective standard.³⁷ Moreover, the Model Code shifts this determination out of the purview of the

²⁸ Commentary at 6R-3-01.

²⁹ Commentary at 2R-1-01.

³⁰ The Model Code’s official commentary goes so far as to characterize the “prevention of unreasonable injury to other water users”—merely one component of “reasonable use”, which is itself just one of the Code’s five stated standards for permitting decisions—as “*the* standard by which the State Agency is to” make permitting decisions and resolve conflicts among water rights. Commentary at 2R-2-26 (emphasis added).

³¹ 2R-2-26. In particular, the second portion of this definition is satisfied if either (a) the utility of the injured use outweighs the utility of the injurious action, or (b) the cost of the injury outweighs the cost of avoiding or mitigating the injury.

³² Commentary at 2R-2-26.

³³ Commentary at 2R-2-26.

³⁴ Commentary at Ch. II, Pt. 1.

³⁵ Commentary at 2R-1-02.

³⁶ Commentary at 2R-2-20. *See also* ARKANSAS NATURAL RESOURCES COMM’N, Water Law in Arkansas 3 (2011) (explaining that, under traditional common-law riparianism, “reasonableness is determined by comparing a given use with uses by other riparians”). If this subjective nature of this inquiry seems incongruous with the aforementioned principle of common law riparianism that non-riparian use is inherently unreasonable—a clearly *objective* standard—that is because it is an exception to formulation of reasonable use as “strictly relational”: a “rare case when a particular use [i]s ‘unreasonable *per se*.’” Commentary at 2R-2-20 (citing Restatement (Second) of Torts ch. 41 (1979); Joseph Dellapenna, *Riparianism*, in 1 & 2 WATERS AND WATER RIGHTS chs. 6-10 (7 vols., Robert E. Beck ed., 1991) at §§ 7.02(d), 7.03).

³⁷ *See* 6R-3-02 (listing a number of factors that must be considered in evaluating the reasonableness of a given use). It is worth noting that the Model Code’s official Commentary characterizes this as a “dual standard”, comprising both an objective component (to which the Code refers as the “abstract question of reasonableness”) and a subjective component (“the relational question”). However, insofar as the commentary implies that the “relational” component

court—which, by definition, cannot declare a use unreasonable until *after* the use has not only commenced³⁸ but *caused injury*³⁹—and makes it an administrative function that occurs on the front end. By doing so, the Code’s approach negates “one of the major criticisms of the riparian rights system.”⁴⁰

Even as many traditionally riparian States shift away from traditional common law riparianism towards regulated riparianism, the concept of reasonable use largely retains its importance.⁴¹ Although, for whatever reason,⁴² “the existing regulated riparian statutes [generally] do not attempt to define the term ‘reasonable use’”, several such “statutes use terms such as ‘equitable portion,’ ‘beneficial use,’ or ‘reasonable-beneficial use,’ [and] define those terms in language similar to the [Code’s] definition of ‘reasonable use[.]’”⁴³ Mississippi, for example—characterized by water law scholars as having come “full circle back to the reasonable use version of riparian rights” upon the 1985 repeal of its appropriative rights system⁴⁴—employs a “beneficial use” standard as the basis for its permitting scheme.⁴⁵ Arkansas, which “formally adopted the riparian rights concept of reasonable use in 1955 in *Harris v. Brooks*[,]”⁴⁶ likewise characterizes its applicable permitting standard as “beneficial use.”⁴⁷ Both States define “beneficial use” in a manner largely analogous to the Model Code’s “reasonable use” standard, for example requiring consistency with the public interest and avoidance of waste and accounting for criteria such as minimum levels and impact on water quality.⁴⁸ These “beneficial use” standards further harmonize

of the Model Code’s reasonable use analysis is comparable to the traditional riparian test, it is the author’s opinion that the commentary is incorrect. Whereas the traditional test compares a given use to some specific other use or uses, the Model Code test compares a given use to *the entire universe of other uses*. Thus, the Model Code’s test can only be accurately characterized as an “objective” test.

³⁸ See ARKANSAS NATURAL RESOURCES COMM’N, Water Law in Arkansas 3 (2011) (“The question of whether a particular use is reasonable can only be determined after the use has commenced”).

³⁹ See *Lingo v. City of Jacksonville*, 258 Ark. 63, 522 S.W. 2d 403 (1975) (applying the “reasonable use” standard to withdrawal of groundwater and holding that withdrawal for the purpose of sale would only be actionable if it injured the common supply of the other “riparian” owners).

⁴⁰ ARKANSAS NATURAL RESOURCES COMM’N, Water Law in Arkansas 6 (2011). As noted by the ANRC, leaving this decision solely to the courts requires litigation in every instance, a result that is both “generally inefficient and costly.” Further, “because of the delay inherent in the resolution of conflicts through courts, this method is particularly unsuited to situations involving water use.”

⁴¹ See generally Model Code Preface at iv-viii (discussing the history and defining characteristics of regulated riparianism). For the purposes of this memorandum, the term “regulated riparianism” is used broadly to describe a system of water use and management statutes based primarily in riparian principles (as opposed to appropriative rights). Such systems generally—though perhaps not as a rule—incorporate some manner of permitting requirement.

⁴² The Code’s official commentary speculates that the reason that regulated riparian states decline to define “reasonable use” is that they “perhaps believe[e] the term is incapable of definition.” Commentary at 2R-2-20.

⁴³ Commentary at 2R-2-20.

⁴⁴ Joseph W. Dellapenna, The Law of Water Allocation in the Southeastern States at the Opening of the Twenty-First Century, 25 U. Ark. Little Rock L. Rev. 9, 30 (2002).

⁴⁵ See Miss. Code § 51-3-13.

⁴⁶ ARKANSAS NATURAL RESOURCES COMM’N, Water Law in Arkansas 4 (2011). See *Harris v. Brooks*, 225 Ark. 436, 283 S.W. 2d 129 (1955).

⁴⁷ See ANRC Rules, Section 301.3(G). Arkansas’s permitting standard differs from those employed by both Mississippi and the Model Code in that it is only set out via regulation. In fact, not only does Arkansas not provide by statute its permitting standard, it does not provide by statute *a permitting requirement at all*. (Note that Arkansas does provide a statutory permitting requirement for the construction of dams; this, however, is not the present subject of discussion and thus can be disregarded).

⁴⁸ See Miss. Admin Code, Pt. 7, Ch. 1, Rules 1.1E, 1.3B, 1.4(B); ANRC Rules, Section 301.3(G). Although these standards are indeed comparable to the Model Code’s “reasonable use” standard, it is notable that Mississippi and

with the Model Code in their abdication of the notion that non-riparian uses are inherently unreasonable, instead allowing the grant of permits for such uses.⁴⁹ But while both Mississippi and the Model Code place riparian and non-riparian uses on fully equal footing, Arkansas retains its preference for the former by subjecting only the latter to permitting requirements.⁵⁰

ii. Other Permitting Standards

Beyond the requirement of reasonable use, the Model Code’s permitting standards further require a finding that (1) the withdrawal will not exceed the safe yield of the source; (2) the withdrawal and use are both consistent with any otherwise applicable standards under the Code;⁵¹ and (3) the applicant’s desired withdrawal and use incorporate a reasonable plan for conservation.⁵² The Code also lists a “catch-all” standard that requires that the proposed withdrawal and use will comply with all applicable rules and regulations provided by or promulgated pursuant to the Code, the terms of the permit, or “any other statute pertaining to the use of water.”⁵³ These remaining handful of criteria are largely placeholders that invite the administering agency to expound via regulation and other forms of guidance. For example, the text of the Model Code declines to adopt a definition of “safe yield” that is purely hydrologic in nature—that is, one pegged precisely at and limiting withdrawals precisely to the average annual inflow or recharge of the source—instead merely requiring that “safe yield” be determined *based on* a comparison of the recharge and the existing and planned uses.⁵⁴ This effectively “authorizes the State Agency to determine the level of withdrawal that will not impair the long-term social utility of the water source” and “allows [it] to consider human need” and even “authorize some depletion when appropriate[.]”⁵⁵ Similarly, the requirement of consistency with “any applicable comprehensive water allocation plan and drought management strategies”⁵⁶ gives the agency leeway to prioritize certain goals by way of these requisite guidance documents and to factor these priorities into permitting decisions.⁵⁷ And while the requirement for “a reasonable plan for

Arkansas deviate from the Model Code approach insofar as both States opt to flesh out the specifics of “beneficial use” by regulation rather than by statute. While the Model Code does leave room for regulation to provide further specificity with respect to permitting standards, the Code itself is far more detailed on this issue than either Mississippi or Arkansas.

⁴⁹ See Miss. Code §§ 51-3-5; ANRC Rules, Sections 304.1 through 304.16.

⁵⁰ See ANRC Rules, Section 304.1.

⁵¹ In particular, “the proposed withdrawal and use [must be] consistent with any applicable comprehensive water allocation plan and drought management strategies[.]” 6R-3-01(c). See 4R-2-01 and 4R-2-02. The water plan and the drought management strategies, developed and published by the administering agency, will themselves provide a number of guidelines pertaining to long-term and macro-level planning. It should be noted that such guidelines are unlikely to make a significant impact on permitting decisions.

⁵² 6R-3-01.

⁵³ 6R-3-01(e).

⁵⁴ 2R-2-21.

⁵⁵ Commentary at 2R-2-21.

⁵⁶ 6R-3-01.

⁵⁷ See 4R-2-01 and 4R-2-02 (requiring the development and adoption of a “Comprehensive Water Allocation Plan” (hereinafter “Water Plan”) and a set of “drought management strategies”, respectively). It should be noted that 4R-2-01 requires the administering agency to “develop and adopt” a Water Plan, whereas 4R-2-02 uses the phrasing “shall devise and publish”. No explanation is given for the incongruence of the specific actions listed as requirements, but in any event it seems clear that 4R-2-01 should similarly provide for a requirement that the Water Plan be published.

conservation” is in fact a concrete requirement rather than a mere cross-reference, it still grants the administering agency broad authority in determining what type of plan suffices. Presumably, the primary reason that the Code includes these “standards” in statutory text is simply to foreclose any possibility that they are omitted from the administering agency’s eventual regulations—though it is entirely possible to arrive a substantively identical permitting framework without inclusion in statute of any criteria beyond reasonable use. Mississippi, for example, does not set out by statute any standards for permitting determinations beyond general baselines such as the aforementioned “beneficial use” requirement,⁵⁸ a generic requirement that “the proposed use [not be] detrimental to the public interest[.]”⁵⁹ and minimum preservation of certain minimum levels⁶⁰—in fact, it describes the functions of its permit board with permissive, rather than mandatory, language⁶¹—and yet its regulations provide detailed permitting rules that largely resemble those listed in the Model Code.⁶² By contrast, Arkansas *does* set out via statute standards that closely resemble some of those listed in the Model Code.⁶³ This resemblance, though, is largely limited to terminology—like Mississippi, Arkansas leaves virtually all substantive description of these standards and the requirements they impose to be provided by regulation.⁶⁴

iii. Relationship Between Separate Lawful Withdrawals

After setting out the standards for grant of a permit, the Model Code goes on to provide greater detail regarding some of the “more specific aspects of these standards.”⁶⁵ In particular,

Especially given that the Code makes the Water Plan a criterion on which the administering agency can base permitting decisions, it is imperative that the Plan be made available to the public.

⁵⁸ In this sense, the other, more specific criteria and requirements imposed via regulation can all be conceived of as being *components* of the beneficial use standard. *Cf.* text accompanying n.20.

⁵⁹ Miss. Code § 51-3-13.

⁶⁰ Miss. Code § 51-3-7(2)-(4).

⁶¹ *See* Miss. Code § 51-3-15(2) (setting out that “[t]he board *may*” take any number of actions related to permitting decisions) (emphasis added).

⁶² *Compare* Model Code, 6R-3-01(b) (requiring that the proposed withdrawal “not exceed the safe yield”) *with* Miss. Admin Code, Pt. 7, Ch. 1, Rule 1.3(B)(1),(2)(limiting permits generally to withdrawal only of water in excess of “established minimum flow” or “established average minimum lake level”, respectively). *Compare* Model Code, 6R-3-01(c)(requiring consistency with Water Plan and drought management strategies) *with* Miss. Admin Code, Pt. 7, Ch. 1, Rule 1.2(E)(granting Permit Board authority to deny permit on basis that proposed use would “conflict with the public interest”). It should be noted that, while these standards are indeed comparable to those set out by the Model Code, they are not identical; the Code, for example, provides separately with respect to the concept of “minimum flows,” a concept related to but not duplicative of safe yield. Further, Mississippi imposes no requirement respecting a “reasonable plan for conservation”. *See* Model Code 6R-3-01(d).

⁶³ *See, e.g.,* Ark. Code §§ 15-22-322 (requiring the ANRC to “establish and enforce minimum stream flows”); 15-22-301 (requiring the ANRC to “[d]efine the term ‘safe yield’”); 15-22-503 (charging the ANRC with “preparing, developing, formulating, and engaging in a comprehensive program for the ... management of the state’s water ... resources” with “regard for the public interest”). Note that these are generally the only water-related standards Arkansas sets out by statute; others are established solely by regulation.

⁶⁴ *See, e.g.,* Ark. Code § 15-22-322(a) (requiring the ANRC to “establish and enforce minimum stream flows” but providing no specification as to what such standard must encompass). *See also* ANRC Rules, Sections 301.3W and 303.1 (fleshing out the concept of “minimum stream flows”). Note that the ANRC has not actually satisfied the statutory requirement that it “[d]efine the term ‘safe yield’”.

⁶⁵ Commentary at 6R-3-01. Although the Model Code’s stated criteria for determining whether a use is reasonable were discussed *supra*—alongside discussion of “reasonable use” generally—such criteria are actually contained in this portion of the Code. Nevertheless, such discussion need not be repeated.

these provisions largely dictate the manner in which the nature of a given withdrawal or use relative to other withdrawals or uses impacts the agency's determination as to its "reasonableness."⁶⁶ The first of these rules pertains to separate withdrawals by a single person.⁶⁷ On this issue, the Model Code clarifies that withdrawals are aggregated—the applicable volumetric measurement "include[s] all separate withdrawals by a single person for a single use or for related uses"—for both for the purposes of permitting decisions and the purpose of determining the applicability of permitting requirement itself.⁶⁸ Thus, neither the permitting requirement itself nor the standards for permitting can be circumvented by simply breaking up what actually constitutes a single major withdrawal into multiple separate, less-significant and ostensibly more "reasonable" withdrawals and simply "apply[ing] for a succession of permits to secure [a larger] allocation[] of water[.]"⁶⁹

That this rule is a good illustration of the fact that the reasonableness of a given withdrawal or use is impacted by other related withdrawals and uses is especially fitting given the Model Code's next rule. Here, the Model Code dictates the relationship between separate withdrawals in circumstances where "the waters available from a particular water source are insufficient to satisfy all lawful demands upon that water source."⁷⁰ Specifically, the Code requires the administering agency to allocate water from such source only "up to the safe yield or other applicable limit" according to a series of preferences.⁷¹ The order of the Code's preferences is as follows: (1) "human consumption or sanitation ... as necessary for human survival and health;" (2) uses necessary for agricultural purposes; and (3) "other uses" in such order as "maximize[s] employment and economic benefits" while maintaining consistency with "the overall goal of sustainable development[.]"⁷² Importantly, "[t]he criteria in this section are not [intended] to be applied in a rigidly mechanical fashion, but [with] consideration of the characteristics of the water source, the possibilities of alternative sources, and the interplay of various existing or proposed uses on those characteristics."⁷³

This represents another provision that a State can tailor to its own unique set of needs, challenges, and goals. Both by virtue of the setting of the applicable limit at which the priorities kick in and by virtue of the priorities themselves, this provision provides a further mechanism by which to implement a given set of water management strategies. In this regard, the different objectives emphasized and strategies employed by States are reflected in the use priorities they list. Mississippi, for example, orders its priorities as follows: (1) Public Supply; (2) Industrial/Commercial (broken up into the following subcategories: (a) agricultural, (b) industrial, (c) livestock, (d) commercial); (3) enhancement of wildlife habitat and other recreational uses; and

⁶⁶ In addition to the two rules discussed immediately below, this group of provisions also provides a special standard applicable to permitting decisions related to interbasin transfers. Because, in the author's opinion, discussion of this standard is better grouped with discussion of other "special rules", it will be omitted, here. For discussion of the special standard for interbasin transfers, see Part V(B)(ii), *infra*.

⁶⁷ "Single person," as used in this sentence, pulls from the exact wording of the provision at issue. It should be noted that "Person" is defined by the Model Code as including "an individual, a partnership, a corporation, a municipality, a State (including this State), an interstate or international organization, or any other legal entity, public or private." 2R-2-15.

⁶⁸ 6R-3-03.

⁶⁹ Commentary at 6R-3-03. Notably, Mississippi provides (by regulation) an explicitly contrary rule, instead requiring an individual to apply for separate permits "for each separate withdrawal or diversion point" and noting that for withdrawal by mobile pumps, "a separate permit will be required for each" withdrawal point of a given size.

⁷⁰ 6R-3-04.

⁷¹ 6R-3-04.

⁷² 6R-3-04.

⁷³ Commentary at 6R-3-04.

(4) “Other” uses.⁷⁴ Notably, Mississippi sets out individualized permitting rules specific to each category of use.⁷⁵ Arkansas’s prioritization schedules, while less detailed, are nevertheless revealing. Arkansas sets out ordered priorities for both categories of use ((1) agriculture; (2) industry; (3) hydropower; (4) recreation) and categories of diversion ((1) riparian; (2) non-riparian, intrabasin; (3) non-riparian, interbasin; (4) out-of-state).⁷⁷

IV. Administration of Permitting Scheme

In addition to the substantive rules governing the applicability of the permitting requirement and the standards informing permitting determinations, the Model Code sets out a number of rules relative to the procedures for administration of such system.

A. Rules Regarding Application for Permit

With respect to applying for a permit, the Code provides a number of rules. It sets out the requisite contents of an application,⁷⁸ mandates a notice-and-comment period with respect to permitting determinations,⁷⁹ provides for the order in which the administering agency must process applications⁸⁰ and the timeframe for doing so,⁸¹ and establishes a procedure for interested parties to contest a given permit application that might adversely affect them.⁸² The Code further requires the administering agency to provide an applicant with certain information regarding its

⁷⁴ Miss. Admin Code, Pt. 7, Ch. 1, Rule 1.4(B).

⁷⁵ For example, “[w]ater permits for other beneficial uses [aside from public supply] may be denied or modified to insure that present and future public supply needs can be met[.]” whereas for agricultural use, “[t]he applicant may be required to explore conjunctive use of surface water as an option and demonstrate efficient use of groundwater through implementation of practicable water conservation measures.” Miss. Admin Code, Pt. 7, Ch. 1, Rule 1.4(B).

⁷⁶ Note that none of these categories are as self-defining as they might appear at first blush. In particular, there is quite a bit of overlap between the categories of “recreational” use and “commercial” use. For example, how might one categorize a professional fishing tournament? In any event, Louisiana’s Constitutional provisions regarding the Public Trust suggest that the Committee may have comparatively less flexibility in setting the order of priorities in Louisiana’s Water Code.

⁷⁷ ANRC Rules, Section 307.4. The prefatory note to Arkansas’s listed priorities sets out that all “allocations shall give reasonable preference first to sustaining life, then to maintaining health, and finally to increasing wealth.” It is not readily apparent the way in which these stated priorities interact with the above listed priorities.

⁷⁸ 6R-2-01. The information required by the Code to be included in an application for a permit is both extensive and detailed. The Code sets out by statute eighteen separate items that an application must include. By contrast, Mississippi opts for a statutorily bare-bones approach, setting out simply that an application shall be in a form “prescribed by the board for such purpose” and “shall provide such information as deemed appropriate by the board[.]” Miss. Code § 51-3-31. The informational requirements Mississippi imposes by regulation, while similar in nature to those set out in the Code, are still far less extensive. *See* Miss. Admin Code, Pt. 7, Ch. 1, Rule 1.2C(1), D (requiring the purpose of the proposed use, the maximum volume required, the estimated volume required, dates for initial use, and specific informational maps).

⁷⁹ 6R-2-02; 6R-2-05.

⁸⁰ 6R-2-03.

⁸¹ 6R-2-06.

⁸² 6R-2-04.

determination⁸³ and mandates a reasonable opportunity for denied applicants to cure and resubmit their application.⁸⁴

Importantly, the Model Code also provides applicants and persons likely to be affected by the promulgation of a proposed regulation the right to a hearing with respect to any adverse order or decision of the administering agency.⁸⁵ The Code sets out that a hearing must be held within 30 days of a written request by the aggrieved party,⁸⁶ eschewing the requirement imposed by some regulated riparian states of a mandatory hearing prior to any agency action.⁸⁷ Arkansas, for example, is a state that provides for a mandatory hearing.⁸⁸ Mississippi, by contrast, takes an approach closer to that of the Model Code, setting out that “[a]ny interested person shall have the right to request ... a hearing ... by making a request therefor in writing.”⁸⁹

This question—whether to require a hearing for each agency action or to merely create a right to request a hearing—is yet another that implicates questions of allocation of resources. Certainly, the Code’s approach seems, facially, to be more efficient, as time and manpower are only dedicated to holding a hearing when necessary. If the Committee elects to employ the Code’s right-to-a-hearing approach, though, it will need to answer second-order questions regarding the scope of that right. More specifically, the Committee will need to determine who, in particular, has the right to demand a hearing. The Code grants this right to two slightly different classes of person: (1) “Any person aggrieved by an order or decision of the [administering] Agency”; and (2) any person “whose interests in fact are likely to be affected adversely by a regulation proposed or adopted by the [administering] Agency[.]”⁹⁰ Notably, these alternative requirements—being either “aggrieved” or “interest[ed] in fact”—correspond with the general requirements for standing in federal court.⁹¹ These standards in turn implicate a relatively complex line of Supreme Court jurisprudence and generally do not draw clear lines—especially as applied to cases with environmental components.⁹² Whether this lack of clarity regarding the outer limits of the right to a hearing represents a significant practical problem, however, is debatable. Mississippi, for example, describes the scope of its right even *more* broadly than the Model Code, extending it to “[a]ny interested person”.⁹³ This broad construction, however, is not universal. Hawaii stands as an example of a state with a “considerably more restrictive model” of the right to a hearing.⁹⁴ Specifically, Hawaii limits the right to a hearing to persons who either “ha[ve] some property

⁸³ 6R-2-07.

⁸⁴ 6R-2-08.

⁸⁵ 5R-1-01. Note that the Model Code drafters seem to have incorrectly designated the Subsections of Section 5R-1-01, as the first Subsection of Section 5R-1-01 is designated Subsection (4). In any event, the internal cross-references contained in this Section refer to the Subsection designated (4) as “subsection (1)”. For the purposes of this memorandum, the author will use the actual subdesignations used in the Model Code, without regard to their correctness or incorrectness.

⁸⁶ 5R-1-01.

⁸⁷ Commentary at 5R-1-01.

⁸⁸ Ark. Code 15-22-206 and 207.

⁸⁹ Miss Code 49-17-35. *See* Miss. Code 51-3-51 (“The procedures whereby ... any interested party may obtain a hearing on matters within the jurisdiction of the [Commission on Environmental Quality] shall be as prescribed in Sections 49-17-31 through 49-17-41”).

⁹⁰ 5R-1-01(4).

⁹¹ Commentary at 5R-1-01 (“These are the usual requirements for ‘standing’ before federal courts, and are often the law in the states as well”). *Cf.* 5 U.S.C. 702 (“A person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof”).

⁹² *See Sierra Club v. Morton*, 405 U.S. 727 (1972); *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992).

⁹³ Miss Code 49-17-35.

⁹⁴ Commentary at 5R-1-01.

interest in [the] land within the hydrologic unit” at issue or who will be “directly and immediately affected by the water use proposed in the application.”⁹⁵ Both the complexity of this issue and the importance of preserving individual rights in this context, this is a topic on which the Committee should at least consider blazing its own trail.

B. Rules Applicable Upon Grant of Permit

Once a permit has been granted, the Model Code sets rules for the maintenance of a valid permit. Primary among these is the requirement that a permittee abide by the terms and conditions of the permit.⁹⁶ The Model Code elects to mandate the attachment of certain specific terms to each permit.⁹⁷ In particular, each permit granted pursuant to the Code must specify requirements regarding: (1) the location of the withdrawal; (2) the maximum authorized volume and level of consumptive use and any applicable conservation measures pertaining to the withdrawal; (3) the timing or dates of the withdrawal, relative to seasonal impacts on water, and seasonal variations on the authorized withdrawals; (4) the uses to which the water will be put; (5) the amount of return flow and place of discharge; (6) metering and reporting; (7) the time-frame for any necessary construction, as well as the timing of the withdrawal, relative to the grant of the permit; (8) extraordinary withdrawals of water necessary with respect to any construction necessary for the withdrawal; (9) the obligation to restore the relevant lands and waters to their prior condition; (10) the expiration date of the permit;⁹⁸ and (11) payments pertaining to any interbasin transfer.⁹⁹ The Code further grants authority to the administering agency to include in any additional permit terms that further the State’s water management goals.

The level of detail set out with respect to the Code’s statutory requirements for permit terms—and even the statutory requirement of given terms at all—is notable. Although Mississippi similarly sets out the statutory requirement that permittees “compl[y] with ... any applicable permit conditions[,]”¹⁰⁰ it deviates significantly with respect to the leeway it grants its

⁹⁵ HI R.S. 174C-53(b). Notably, this provision seems to be directed specifically to addressing third-party objections to the application for or grant of a permit, rather than challenges to the application and permitting process or determination by the applicant himself. While the state of Hawaii and this statute in particular are cited by the Model Code’s official commentary as an example of a narrow right to hearing, the extent to which this right is extended to the applicant himself is not readily apparent.

⁹⁶ See 6R-1-01 (requiring, as a necessary condition to the right to withdraw water, that a permittee “fully comply[] with all ... permit terms or conditions”).

⁹⁷ 7R-1-01.

⁹⁸ The Model Code requires a definite expiration date to be included in each permit so as “to put all on notice without ambiguity” and also to provide a clear target date for a renewal application. Commentary at 7R-1-01. Note that Code further provides relative to the determination of this date. See 7R-1-02. These provisions will be discussed in greater detail, *supra*.

⁹⁹ Although all listed as required terms of a permit, the inclusion of a number of these “requirements” is only mandatory to the extent the inclusion is deemed necessary by the administering agency in order to render the proposed withdrawal and use sufficiently “reasonable” to satisfy the applicable permitting standards. Such “as-necessary” terms include the following (as numbered above): (2) conservation measures; (3) seasonal variations; (5) return flow and place of discharge; (6) reporting requirements; and (9) obligation to restore the land/waters. Several other requirements are of a nature such that, while not left to the discretion of the administering agency, they nevertheless may not be applicable with respect to every proposed withdrawal. For example, the requirement of payments for interbasin transfer, though mandatory when applicable, is not always applicable.

¹⁰⁰ Miss. Code § 51-3-5. See also Miss. Code Ann. § 51-3-15(2)(c)(allowing the permit board to revoke a permit for “failure to adhere to permit conditions”).

administering agency. Whereas the Code mandates by statute the inclusion of a number of essential permit terms and conditions, Mississippi allows its permit board broad leeway to include “conditions and limitations consistent with the regulations of the [administering agency] and as it reasonably deems necessary to effectuate the purposes of [its water management laws].”¹⁰¹ Of course, it is unlikely that a statutory mandate of essential permit terms would have much impact in any event, given that “[t]here is not a strong effort to enforce water use permit compliance” in Mississippi.¹⁰² Notably, the drafters of the Model Code argue that effective administration and enforcement of permits dictates that “the [administering] Agency must require that each [permittee] install and maintain adequate metering and related devices and to report the resulting information to the Agency” periodically.¹⁰³ In particular, they reason that mandating such installation and reporting as essential permit conditions “should reduce the administrative burden on the [administering] Agency.”¹⁰⁴ This likewise stands in contrast to Mississippi’s voluntary reporting.

The Model Code further provides relative to non-compliance with permitting conditions. Specifically, the Code sets out that a permit is forfeited “whenever the [administering agency] determines that a person to whom a permit has been issued will be unable under any foreseeable circumstances to comply with ... permit terms or conditions, [or other requirements].”¹⁰⁵ It further provides two additional grounds for forfeiture: waste of water¹⁰⁶ and failure to exercise the rights conferred by the permit for a period of five consecutive years.¹⁰⁷ In this context, “waste of water” is defined as “causing, suffering, or permitting the consumption or use of the waters of the State for a purpose or in a manner that is not reasonable.”¹⁰⁸ The Code’s official Commentary clarifies that this “includes any use of water that is not reasonable[,]”¹⁰⁹ but no explanation is given as to the need for a second standard that precisely duplicates the requirement of reasonable use, a necessary condition for the grant of a permit.¹¹⁰ If these two standards were insufficient, the Code also provides for the revocation of a permit for the “willful violation of th[e] Code or of any term

¹⁰¹ Miss. Code § 51-3-15(2)(a). Arkansas, of course has no statutory requirement of essential permitting terms, as Arkansas has no statutory permitting requirement at all.

¹⁰² Brugera Memo.

¹⁰³ Commentary at 7R-1-01.

¹⁰⁴ Commentary at 7R-1-01.

¹⁰⁵ 7R-1-03(2).

¹⁰⁶ 7R-1-03(1).

¹⁰⁷ 7R-1-03(1). The purpose of this ground is to “preclude[] the speculative holding of water rights.” See Commentary at 7R-1-03. In addition to the duplicative nature of these and the standards described *infra*, the curious structure of Section 7R-1-03—the section regarding forfeiture—should be noted. Specifically, it should be noted that while Subsection (2) provides a single ground for forfeiture (inability to comply with terms) and Subsection (3) provides relative to the discrete topic of partial forfeiture, the remaining two grounds for forfeiture—waste and nonuse—are grouped together in Subsection (1). Although a plain reading indicates that these are indeed two separate and distinct grounds for forfeiture, there is no apparent justification for the fact that they have been grouped together with the third ground set apart separately. Further troubling is the Code’s statement of the effects attached to these grounds for forfeiture. In particular, while Subsection (1) sets out that the consequence for waste or nonuse is that the permittee “forfeits the right and the permit becomes void[,]” Subsection (2) simply states that “a forfeiture also occurs” upon the agency’s determination of inability to comply with terms. It is unclear whether a difference in consequence was intended, here, but it is difficult to conceive of any other justification for the use of disparate language, here. Notably, “forfeit” and “forfeiture” are not defined terms under the Model Code.

¹⁰⁸ 2R-2-27.

¹⁰⁹ Commentary at 2R-2-27.

¹¹⁰ Cf. Part [section discussing reasonable use]. Note that the obligation of reasonable use is applicable to all withdrawals and uses of water, regardless of whether made pursuant to a permit.

or condition of any permit or regulation issued under th[e] Code” and “when necessary to prevent an unreasonable injury to a holder of another water right[.]”¹¹¹ Although these standards all seem to have considerable overlap, the Code gives no explanation as to why each is necessary, nor does it purport to distinguish “forfeiture” from “revocation.” In any event, it is fairly clear that the maintenance of a valid permit requires that a permittee adhere to all relevant obligations under the Code.

In addition to providing for early termination of a permit as a result of some prohibited action or inaction by the permittee, the Code also requires that the “natural” lifespan of a permit be restricted to a definite, limited term, with each being set on an individualized basis.¹¹² More specifically, the Code ties the duration of each permit to the economic lifespan of the investments corresponding with its exercise, with an outer limit of twenty years.¹¹³ The Code’s selection of this approach is based in part on the presumption that “the sales of water rights will remain relatively rare under a regulated riparian system” such as the Model Code.¹¹⁴ If this presumption is accurate, then the Code’s chosen governance of the permit life-cycle will allow for the gradual “reallot[ion of] the waters of the State to more reasonable uses as [] earlier permits expire.”¹¹⁵ Nevertheless, one might argue that basing permit duration on the economic lifespan of investments made necessary by the proposed use runs contrary to the Model Code’s requirement that prior investments related to the proposed use “have *no bearing* on decisions relating to [an] application or permit.”¹¹⁶ Indeed, if the State Agency is barred from considering the acquisition of land or the construction of facilities related to the proposed use in making all decisions related to the permit, it is nearly impossible to see how the duration of the permit—based on “the economic life of any necessary investments” related to the permit¹¹⁷—could possibly be set.¹¹⁸

Even assuming that the technical conflict, here, will be resolved, the inherent tension between these provisions is apparent. Determining optimal permit duration is, of course, a balancing act: Investors’ need for security in their water right must be weighed against the State’s interest in active management of an important public resource.¹¹⁹ The Code’s decision to leave decisions regarding permit duration to be made by the administering agency on a case-by-case basis is, in fact, outside of the norm. Most regulated riparian statutes provide for set periods of duration, the most common being 10 years with an alternate period of 50 years for public

¹¹¹ 5R-5-02.

¹¹² 7R-1-02.

¹¹³ 7R-1-02.

¹¹⁴ Commentary at 7R-1-02. This presumption is based, at least in part, on the drafters’ evaluation of “the highly touted transferable air pollution emission allowances” as not having “proven particularly useful in practice.” *See also* Sam Hays, *Emissions Trading Mythology*, ENVTL. FORUM, Jan./Feb. 1995, at 15. Notably, none of the commentary cited by the drafters in support of this conclusion was published in the last twenty years. The author of this memo is uncertain as to whether the conclusion holds true today.

¹¹⁵ Commentary at 7R-1-02.

¹¹⁶ 6R-3-05. It should be noted that this provision does not bar the consideration of *all* such investments, but rather merely a significant portion thereof.

¹¹⁷ 7R-1-02.

¹¹⁸ This inconsistency becomes even more apparent when considered in the context of *renewal* decisions related to *existing* permits: Despite the Code’s explicit statutory prohibition on the consideration of prior investments with respect to permitting decisions, the official commentary sets out, relative to renewal decisions, that “[t]he Agency remains charged to consider all effects in deciding whether to decline to renew a permit, *including the investments lawfully made in pursuance of the water right that the renewal applicant seeks to renew.*” Commentary at 7R-1-02. Notably, the Code makes no textual statement as to whether the criteria for renewal differ in any way from the criteria for the initial grant of a permit.

¹¹⁹ Commentary at 7R-1-02.

investments.¹²⁰ Others have provided for shorter durations—“apparently without significant adverse effects on investment in water within the state.”¹²¹ The thought process underpinning these shorter periods is that it is unlikely in practice that permits facing expiration will often be denied renewal altogether; rather, conditions may simply be modified.¹²² It is easy to see how this would result in greater conservational flexibility—but, on the other hand, might result in added administrative burden. As always, the Committee’s determination of which approach to follow will be guided by its underlying objectives. And, as alluded to above, if the Committee ultimately elects to follow the Model Code in this area, some reconciliation may prove necessary in any event.

C. Rules for Enforcement

Even with the detailed permitting scheme described above, it is axiomatic that “[a]chieving the [goals] of the Regulated Riparian Model Water Code [is] impossible without effective enforcement.”¹²³ Accordingly, the Code sets out a detailed enforcement framework to ensure compliance with its requirements and thus accomplishment of its goals. The obvious first step in ensuring that individuals’ water-related activities do not run afoul of the Code’s mandates is the thorough assessment of those activities. Thus, the Code grants agents of the administering agency the authority—pursuant to an administrative inspection warrant—to enter private property where the agent reasonably believes that water is being withdrawn, in order “to inspect, investigate, study,

¹²⁰ Commentary at 7R-1-02. This alternate 50-year period is based on the theory that 50 years is the most common term for bonds issued to finance public investments. The accuracy of this theory, however, should perhaps not be taken for granted, given that the Model Code commentary erroneously and interchangeably refers to the term of a bond as both its “duration” and its “period”. Notably, the “duration” of a bond refers to the length of time it takes for the bond’s total cash flows to repay a given investor’s purchase price; a bond’s duration is nonlinear and accelerates as its maturity date approaches. The “period” of a bond generally refers to the length of time between two successive payments to the holder.

¹²¹ Commentary at 7R-1-02. The thought process underlying the selection of these shorter periods—sometimes as short as one year—is that “permits will seldom be completely denied renewal when they expire[.]”

¹²² It should be noted that the Model Code’s drafters contemplate at least some sort of presumption of or preference for renewal, at least in relation to the grant of a wholly new permit: Although “[t]he Agency remains charged to consider all effects in” making a renewal determination, the drafters instruct that “[t]he water right should be granted to another [new] applicant only on a clear showing that the public interest generally, and sustainable development in particular, would be *enhanced*” as compared to renewal of the existing permit. Commentary at 7R-1-03. It is also notable that the actual text of the Model Code at section 7R-1-02(2) similarly characterizes section 6R-3-04(3) as providing for “renewal preference”. The text of this latter provision provides as follows:

“In order to assure that the State’s water quality standards are achieved and maintained, the State Agency shall, in determining whether a proposed or existing water withdrawal or use is reasonable, determine the effect of an allocation of water on the capacity of the water source to assimilate effluent from point and nonpoint sources, balancing the cost of additional pollution control on the pollutant source against the cost of losses imposed on other actual or potential users of water as a result of the impact of the proposed effect on the water source’s waste assimilation capacity.”

6R-3-04(3). It is not readily apparent—at least to the author of this memorandum—the way in which this provision provides a “preference” for renewal over initial grant. First, the provision is explicitly applicable to both “proposed [and] existing water withdrawal[s]”. And to the extent that the administering agency is being directed to consider the *additional* potential negative impacts and costs of mitigation of those impacts related specifically to a *new* withdrawal or use—as opposed to an existing withdrawal or use—it would seem that such considerations would be already “baked into” the general permitting analysis. And given that such considerations would no doubt be applicable to both proposed new and proposed continuing uses and withdrawals, it unclear from where this “preference” could be said to emanate.

¹²³ Commentary at Ch. IV, Pt. 4.

or enforce th[e] Code, or any order, term or condition of a permit, or regulation made pursuant to th[e] Code.”¹²⁴ The Code does not, however, set out any details regarding such warrants or standards for their issuance, instead opting to “leav[e] that to the general laws of the State and to regulations adopted under the Code.”¹²⁵ As a general matter, such warrants do not require “probable cause” but rather mere “reasonable grounds”—which, notably, can validly include not only a “particularized reason for a given inspection” but also “a regular pattern of inspections[.]”¹²⁶

From there, the next step in the Code’s enforcement scheme is notice of violation: When an agent of the administering agency has reason to believe that there has been a violation of the Code or its regulations or of permit terms, the Code requires that the agent “serve upon the [violating] person ... a written notice of the violation[.]”¹²⁷ Such notice must indicate the provision allegedly violated and the facts alleged to constitute the violation.¹²⁸ Upon being served a notice of violation, the alleged offending party is thereby required to answer the charges at a formal hearing.¹²⁹ After this hearing, the administering agency has the authority to order the cessation of any violations or the restoration of the condition of the waters at issue or both.¹³⁰ Notably, however, the Code is drafted broadly in this context so as to allow “the Agency [to] expand on this concept to make any order reasonably necessary to achieve the enforcement of the Code.”¹³¹ Beyond these so-called “cease and restore” orders,¹³² the administering agency is also authorized to seek injunctions to enjoin any unlawful withdrawals or uses of water.¹³³ Although functionally similar to “cease and restore” orders in terms of effect, injunctions “carry greater force than [these] orders [] in[sofar as] persons who violate an injunction face imprisonment for contempt of court[.]”¹³⁴ In any event, however, the violation of any Code provision, order, permit term, or regulation subjects the offender to potential civil liability “for the expenses incurred ... to investigate and resolve the violation and to correct its effects, and also to compensate any person injured by the violation[.]”¹³⁵ Likewise, civil penalties of up to \$10,000 may be assessed for each such violation.¹³⁶ The Code also sets out an optional provision allowing for private suits by citizens for the enforcement of any Code provisions.¹³⁷

In addition to the aforementioned civil enforcement mechanisms, the Model Code also provides for criminal enforcement. This inclusion of criminal enforcement mechanisms follows

¹²⁴ 5R-4-01(1).

¹²⁵ Commentary at 5R-4-01.

¹²⁶ Commentary at 5R-4-01. *See New York v. Burger*, 482 U.S. 691 (1987); *Camara v. Municipal Court*, 387 U.S. 523 (1967).

¹²⁷ 5R-4-02(1).

¹²⁸ 5R-4-02(1).

¹²⁹ 5R-4-02(2). Such party has the option to waive such hearing.

¹³⁰ 5R-4-03(1).

¹³¹ Commentary at 5R-4-03.

¹³² Commentary at 5R-4-03.

¹³³ 5R-4-04.

¹³⁴ Commentary at 5-4-04.

¹³⁵ 5-4-05. The Code’s official commentary clarifies that this section “does not address whether the Agency can recover damages for the generalized degradation of the environment[.]” Commentary at 5-4-05.

¹³⁶ 5-4-06. The Code dictates that such penalties shall be no less than the total monetary benefit derived by the offender by the offending action, subject to the \$10,000 cap. This limit generally jibes with the limits set by states with similar provisions; Arkansas, for example, provides for the same limit. *See Ark. Code 15-22-204(b)(3)*. *Cf. Miss Code 51-3-55* (\$25,000).

¹³⁷ 5R-4-09. Notably, this does not purport to limit any additional cause of action available to such an individual under law other than the Model Code. If adopted in Louisiana, for example, there would be no limitation of available remedies in tort or otherwise. *Cf. La. Civ. Code art. 2315*.

the paradigm of most existing regulated riparian statutes, which generally declare some or all violations of the statute to be a crime.¹³⁸ The Model Code, however, differs slightly in its approach: The only criminal acts under the Model Code are the knowing inclusion of falsehoods in any document or report required under the Code and the knowing falsification of data in monitoring devices.¹³⁹ The final enforcement mechanism set out by the Code is the revocation of permits, which is authorized “for any willful violation of th[e] Code or of any term or condition of any permit or regulation issued under th[e] Code[.]”¹⁴⁰

V. Additional Rules Applicable Independent of Permitting Requirements

Although the detailed permitting scheme described above represents a large portion of the Model Code, it does not represent the Code in its entirety. Rather, the Code contains a number of additional rules and frameworks for water management, some universally applicable and others applicable only in specific circumstances. This Section of the memorandum will discuss these rules in greater detail.

A. Reasonable Use

The first and most significant of these non-permit related rules is the obligation to make only reasonable use of water. As discussed in Part III(B)(i), *supra*, the concept of “reasonable use” forms the bedrock of the Model Code’s permitting scheme. But the importance of this principle is not limited to the permitting scheme. Rather, *all* uses of water—whether made pursuant to a permit or not—are required by the Code to be reasonable.¹⁴¹ Thus, any unreasonable use of water and any use that causes unreasonable injury to other users¹⁴² will subject the offending party to the enforcement provisions described above. It is important to note that, in practice, the effect of this requirement is more akin to a broad grant of authority to the administering agency than the actual imposition of an affirmative obligation on individual water users. In other words: It is highly unrealistic to suggest that the administering agency would have the capacity to monitor and assess *all* water uses for reasonableness; indeed, the primary impetus for the permitting requirement is to identify the potential high-impact uses on which the administering agency should focus its attention. The universal applicability of the reasonable use standard, then, primarily serves as a mechanism by which the administering agency *can* address uses exempted from permitting *if* such uses become conspicuously problematic. In effect, the reasonable use requirement serves to bring all water use within the purview of the administering agency’s enforcement authority—just in case.

B. Other, Specific Rules

¹³⁸ Commentary at Ch. IV, Pt. 5.

¹³⁹ See 5R-5-01.

¹⁴⁰ 5R-5-02.

¹⁴¹ 2R-1-01. For a detailed analysis of the “reasonable use” standard itself, see Part III(B)(i), *supra*.

¹⁴² See 2R-1-03 (“No Unreasonable Injury to Other Water Rights”).

In addition to the universally-applicable “reasonable use” requirement, the Code also sets out non-permit rules applicable to more specialized circumstances. These rules serve largely to provide the administering agency with flexibility in addressing specialized issues. More specifically, they recognize the fact that water management is fluid rather than static, changing both across geography and across time. Because water conditions differ from area to area and from year to year, it makes sense to allow the administering agency the ability to treat different areas and different time-frames differently. This flexibility is achieved through the following three rule sets.

i. Special Water Management Areas

The first such rule set reflects the reality that different geographical areas within a given state often face different water management challenges. In particular, when overall water demand approaches overall water supply and there is no specific allocation in place, conflicts often arise regarding how such demand should be met. “Often the[se] conflicts are not statewide, but rather are limited to localized areas of limited supply or intensive use.”¹⁴³ Accordingly, Chapter IV of the Model Code contains an optional Part 4 that allows for the creation of “Special Water Management Areas” by the administering agency. “A ‘Special Water Management Area’ is a form of an administration under which the waters of the State within a hydrogeographically defined region of the State are managed by an Area Water Board responsible [specifically] for the waters within that region.”¹⁴⁴ This style of water management avoids the pitfalls inherent in attempting a one-size-fits-all approach to managing the water resources of a state with a hydrologically diverse geography, allowing instead for a more individualized approach in addressing localized needs and challenges. Indeed, “[u]sually, Special Water Management Areas are defined in terms of water basins, s[uch] that an Area typically will consist of a single important water basin within the state.”¹⁴⁵ Notably, the designation of such areas is a task that can either be reserved for the legislature itself or delegated to the administering agency; the Model Code sets out alternative statutes dictating each approach.¹⁴⁶

In any event, the creation of Special Water Management Areas vests individual Area Water Boards “with all the powers necessary to accomplish the purposes for which it is organized[.]”¹⁴⁷ The Model Code spells out these purposes—which largely reflect the stated purposes for the Code writ large—explicitly by statute.¹⁴⁸ Effectively, these Boards are vested with all the powers that

¹⁴³ Commentary at Ch. IV, Pt. 4.

¹⁴⁴ 2R-2-22.

¹⁴⁵ Commentary at Ch. IV, Pt. 4.

¹⁴⁶ See 4R-4-03 and 4R-4-03 (*alternate version*). As a general matter, even in states where the legislature reserves this authority for itself, “the legislature is likely to delegate considerable discretion to the State Agency or to the Special Water Management Areas to decide when or how to implement the Area program.” Commentary at Ch. IV, Pt. 4.

¹⁴⁷ 4R-4-04.

¹⁴⁸ See 4R-4-01. In particular these purposes are as follows:

- (a) the prevention of the unreasonable depletion or contamination of the Area’s water resources for the benefit of all authorized nonconsumptive and consumptive uses;
- (b) the limitation of withdrawals to the safe yield and the protection of minimum flows and levels as provided by this Code;
- (c) the sustainable development of total regional water resources in the public interest, including but not limited to surface water, underground water, return flows, and atmospheric water;

the administering agency is granted under the Code, except that those powers may only be exercised within a limited geographical area. Given the broad authority with which they are vested, the Model Code drafters characterize the decisions “whether to have a local governing board and, if so, how to staff that board” as “perhaps the most sensitive issues” related to Special Water Management Areas[.]”¹⁴⁹ Indeed, some states—Massachusetts, North Carolina, and Virginia, for example—have chosen not to create local boards and instead use Special Water Management Area provisions simply as an administrative tool for the state agency.¹⁵⁰

Notably, the decision not to create local boards reflects one of several distinct strategic approaches to the implementation of Special Water Management Areas. If the Committee ultimately elects to include in its Water Code provisions for Special Water Management Areas, it will thus be tasked with selecting between these approaches. The first potential approach is simply to omit the concept entirely. Generally, this initial choice “depends on such variables as the political and economic diversity of the State as well as the hydrologic diversity of the State.”¹⁵¹ Indeed, “the decision to use Special Water Management Areas is as much a political decision as it is a managerial decision.”¹⁵² Second, a State could rely on these areas to the full extent provided in the Code—creating by statute Special Water Management Areas that encompass the entire state and govern it continuously. Third, a State can opt for the situational, individualized creation of Special Water Management Areas, essentially utilizing the mechanism as a specialized tool to deal with exigent circumstances in a given region. Under such an approach, the State Agency would continue its governance of all areas *not* covered by a Special Water Management Area, effectively “sav[ing] the costs of such bureaucracy for regions where it is not necessary.”¹⁵³ The Code’s drafters urge that, in order “[t]o work effectively, the decision [when and where to implement a Special Water Management Area] must be vested in the State Agency.”¹⁵⁴ Finally, combining somewhat the second and third approaches listed, a State can choose to implement Special Water Management Areas—to whatever extent desired—while reserving the authority to run the permitting program for the State Agency in accordance with the Model Code provisions discussed *supra*. Notably, “[t]he Code proceeds on the premise that the permit issuing authority *should* remain vested in the State Agency.”¹⁵⁵ Nevertheless, some regulated riparian states do shift this responsibility to each Area individually.¹⁵⁶ These are all potential pathways that should be weighed by the Committee as it considers whether to implement Special Water Management Areas.¹⁵⁷

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- (d) the resolution of conflicts among water users within the boundaries of the area; and
 - (e) the implementation of regulations to address [specific local] water management problems.

4R-4-01. *See also* 4R-4-06 (providing relative to the regulatory authority of Special Water Management Areas).

¹⁴⁹ 4R-4-04.

¹⁵⁰ Commentary at 4R-4-04.

¹⁵¹ Commentary at Ch. IV, Pt. 4.

¹⁵² Commentary at Ch. IV, Pt. 4.

¹⁵³ Commentary at Ch. IV, Pt. 4.

¹⁵⁴ Commentary at Ch. IV, Pt. 4.

¹⁵⁵ Commentary at Ch. IV, Pt. 4.

¹⁵⁶ Commentary at Ch. IV, Pt. 4.

¹⁵⁷ The Code lists as further considerations of this nature the manner of appointment or election of each Board and the Board’s interaction with and general status *vis a vis* units of local government in each Area. Commentary at Ch. IV, Pt. 4. It should be noted that Louisiana has, to some extent, already broached this issue with the creation of the Capital Area Groundwater Conservation District and the Louisiana Watershed Initiative. *See, e.g.*, Executive Order No. JBE 2018 – 16.

ii. Interbasin Transfers

In similar recognition of the localized geographic nature of hydrological features within a given state, the Model Code sets out special rules for interbasin transfers of water. Because transferring water for use outside of its basin of origin with little or no return flow to the basin of origin can lead to depletion, “[p]rotection for the water basin of origin is now a well-established part of the law of many States[.]”¹⁵⁸ Historically, the traditional riparian principle that off-tract use was considered unreasonable per se served to protect against “such problematic transfers”.¹⁵⁹ In lieu of this former, less hydrologically-sound protection, the Code provides a series of rules specific to interbasin transfers. Of primary note, when considering an application for a permit that includes an interbasin transfer, the administering agency is required by the Model Code to consider a number of special factors applicable only to permit applications contemplating such use.¹⁶⁰ Further, the Code requires that, in reviewing such application, special weight be given to “any foreseeable adverse impacts that would impair the sustainable development of the water basin of origin.”¹⁶¹ Taken together, these rules essentially serve to raise the bar that must be cleared for the use to be deemed “reasonable.” And even where this heightened standard *is* met, the Code requires the administering agency to assess a “compensation fee” to be paid by the permittee for the purpose of “compensat[ing] the basin of origin for generalized losses not attributable to injuries to particular holders of water rights in the basin of origin.”¹⁶²

iii. Water Emergencies & Water Shortages

The third category of “specific” rule that is applicable alongside the Model Code’s permitting system deals with restrictions of water during water shortages or emergencies. Indeed, “[o]ne of the central purposes of a regulated riparian system of water law is to enable a State to cope reasonably and effectively with the recurring shortfalls in water supply that are becoming more frequent in the humid parts of the nation.”¹⁶³ In the same way that the provision of rules for Special Water Management Areas is a recognition of the fact that different geographic areas face different water-management challenges, the provision of special rules for shortages and emergencies is a recognition of the fact that water-management challenges change from year to year and season to season.

The Model Code addresses these times of specific challenge with something of a hierarchical model. Specifically, the Code distinguishes between water shortages and water emergencies, each triggering different levels of “special” authority.¹⁶⁴ A “water shortage” is

¹⁵⁸ Commentary at 6R-3-06.

¹⁵⁹ Commentary at 6R-3-06.

¹⁶⁰ See 6R-3-06(2). These factors are: “(a) the supply of water available to users in the basin of origin and available to the applicant within the basin in which the water is proposed to be used; (b) the overall water demand in th[e] basin of origin and in the basin in which the water is proposed to be used; and (c) the probable impact of the proposed transportation and use of water out of the basin of origin on existing or foreseeable shortages in the basin of origin and in the basin in which the water is proposed to be used.”

¹⁶¹ 6R-3-06(1).

¹⁶² 6R-3-06(3).

¹⁶³ Commentary at Ch VII, Pt. 3.

¹⁶⁴ Commentary at 7R-3-01.

defined by the Code as “a condition, in all or any part of the State, where, because of droughts or otherwise, the available water falls so far below normally occurring quantities that substantial conflict among water users or injury to water resources are [SIC] expected to occur.”¹⁶⁵ A “water emergency,” by contrast, is a more serious situation, defined in fact as a shortage so severe that “restrictions taken under a declaration of water shortage are insufficient to protect public health, safety, and welfare[.]”¹⁶⁶ Accordingly, the intent of the Code is to allow for enhanced authority in the case of a water shortage—and an even greater enhancement of authority in the case of a water emergency.¹⁶⁷ Under a water shortage, the administering agency is conferred the authority to “restrict any term or condition of any permit issued under th[e] Code[.]”¹⁶⁸ Notably, such restriction is subject to a hearing, whereby the permittee is allowed the opportunity to contest the restriction.¹⁶⁹ Under a water emergency, the Code sets out that the administering agency may “order a [permittee] immediately to cease or otherwise change the withdrawal or use of water”—but, here, *without* prior hearing.¹⁷⁰ From a practical perspective, it is not readily apparent whether there is actually a difference in these ostensibly distinct grants of authority aside from the different hearing requirements. Although the language used to describe each grant of authority is different, it seems that the maximum action allowable under the authority to “restrict any term or condition of any permit” is no different than “order[ing] a [permittee] immediately to cease or otherwise change the withdrawal or use of water[.]” In any event, this is the structure of the Code’s rule set for shortages and emergencies.¹⁷¹

VI. Conjunctive Management

One of the most important aspects of the Model Code is that it employs what is known as “conjunctive management” of water resources. “Conjunctive management” refers to the consolidated treatment of both groundwater and surface water resources under one set of unified principles. In other words, the Code does not differentiate between uses or withdrawals of groundwater and uses or withdrawals of surface water; the requirements and limits, thresholds, and other identifying markers set out by the Model Code are applicable simultaneously and equally to both. This paradigm of water management, the adoption of which the Reporter has made a goal of the present project, recognizes the ecological reality that surface water and groundwater are in fact two components of a single interconnected resource and thus eschews the false distinction between them altogether: Because the health of one category in a given area is nearly always inextricably linked to the health of the other, it makes sense from a scientific standpoint to treat

¹⁶⁵ 2R-2-31.

¹⁶⁶ 2R-2-29.

¹⁶⁷ Commentary at 7R-3-03 (“Because of the greater severity of a water emergency compared to a water shortage, the powers of the State Agency to respond to a water emergency are correspondingly greater”).

¹⁶⁸ 7R-3-01.

¹⁶⁹ 7R-3-02. The Code does not, however, clarify the applicable standard of review for such hearing. Although the Code sets out that, in such hearing, “the burden of proof shall be on the party requesting the hearing[.]” it does not specify what, in particular, such party has the burden of proving.

¹⁷⁰ 7R-3-03. The statute does grant the permittee the right to demand a hearing subsequent to the order to cease or modify withdrawal.

¹⁷¹ It should further be noted that the Code makes special provision relative to conservation efforts, allowing for preferential treatment of permittees that take effective conservation methods.

them in a unified manner. Conjunctive management further allows for more efficient planning and usage of available resources in a given geographic area.

Beyond making scientific sense, conjunctive management of water resources is practical from a legal perspective. The doctrine of “correlative rights”—a common paradigm of use and ownership of subterranean water—is really nothing more than “riparianism turned on its side”: Just as riparianism ties water rights to ownership of the riparian tract, correlative rights doctrine ties the right to withdraw and use groundwater to ownership of the tract of land overlying the groundwater at issue. Further, correlative rights doctrine imposes a familiar obligation to make only “reasonable use” of withdrawn water. The familiarity of this obligation as it relates to the corresponding riparian obligation even extends as far as historically requiring use on the same tract. The theory underlying both rules is the same, of course—to contribute to return flow and avoid unreasonable depletion of the water resource. Notably, Louisiana is both a historically riparian state¹⁷² and already employs a form of correlative rights doctrine.¹⁷³ Thus, the Model Code’s approach with respect to the marriage of these water management paradigms makes sense as a model for the Committee in drafting its Water Code.

Notably, the Reporter’s desire to implement a scheme of conjunctive management jibes with the larger trends in water law nationwide. This is no more apparent than in the United States Supreme Court’s November, 2021 decision in *Mississippi v. Tennessee*.¹⁷⁴ This case centered on a claim by Mississippi that the Memphis Light, Gas and Water Division—a public utility of the city of Memphis, Tennessee—“ha[d] forcibly siphoned into Tennessee hundreds of billions of gallons of high quality groundwater owned by Mississippi.” In relevant part, the Court held that the dispute was subject to the remedy of “equitable apportionment,” under which a court allocates rights to some disputed interstate water resource. This holding is significant for the fact that it represents the first time that equitable apportionment had been applied in a case centered on a dispute over groundwater. In essence, the Supreme Court declined to draw any distinction between surface water resources and groundwater resources insofar as it relates to the applicability of equitable apportionment. This opens the door to what scholars have termed “conjunctive equitable apportionment.” Because both surface and groundwater are now clearly subject to the doctrine of equitable apportionment, *Mississippi v. Tennessee* arguably opens the door for the balancing of one category of resource against the other as part of a single, overarching apportionment calculus. This stands as yet another reason that it makes sense to prioritize conjunctive management of groundwater and surface water in the drafting of the Louisiana Water Code.

¹⁷² See La. Civ. Code art. 657.

¹⁷³ See La. R.S. 31:9.

¹⁷⁴ 141 S. Ct. 31 (2021).