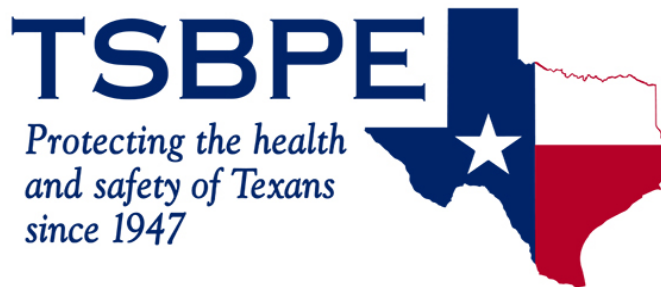


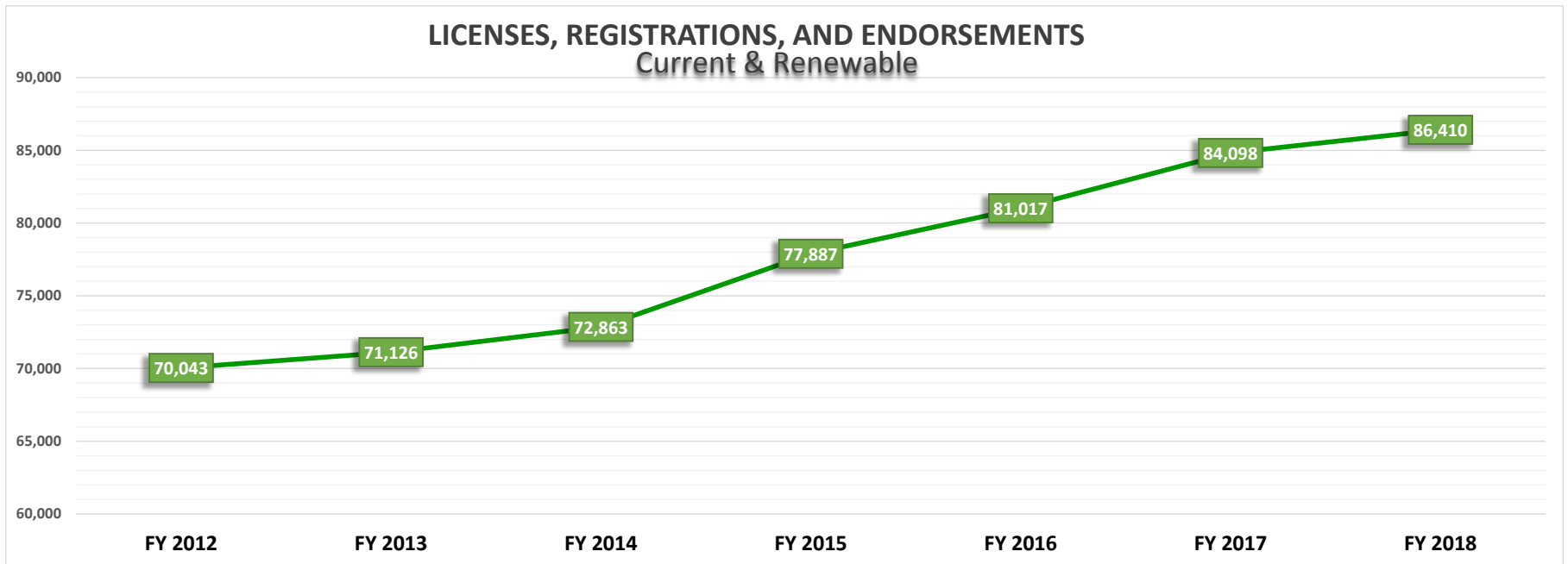
TEXAS STATE BOARD OF PLUMBING EXAMINERS



Sunset Advisory Commission
TSBPE Staff Response &
Sunset Implementation Plan

November 26, 2018

TEXAS STATE BOARD OF PLUMBING EXAMINERS



Texas State Board of Plumbing Examiners (#456)
Revenue Analysis
As Of August 31, 2018

	FY 2018 Actual	FY 2018/2017 % Change	FY 2017 Actual	FY 2017/2016 % Change	FY 2016 Actual	FY 2016/2015 % Change	FY 2015 Actual	FY 2015/2014 % Change	FY 2014 Actual	FY 2014/2013 % Change	FY 2013 Actual	FY 2013/2012 % Change	FY 2012 Actual
REVENUES COLLECTED:													
Comp Object 3175 - License & Registration Fees	\$ 4,892,099	2.9%	\$ 4,754,454	2.4%	\$ 4,644,758	2.0%	\$ 4,551,521	5.8%	\$ 4,302,150	8.1%	\$ 3,981,077	2.6%	\$ 3,880,729
Comp Object 3175 - Texas.Gov Fees	157,482	1.4%	155,326	-1.7%	158,052	5.7%	149,522	2.5%	145,908	0.4%	145,267	3.8%	139,882
Comp Object 3717 - Administrative & Civil Penalties	267,380	36.7%	195,656	-18.5%	239,994	10.1%	217,886	16.8%	186,560	-16.7%	224,035	19.1%	188,073
Comp Object 3775 - Returned Item Fees	1,325	89.3%	700	16.7%	600	-25.0%	800	10.3%	725	-21.6%	925	-5.1%	975
Totals	\$ 5,318,286	4.2%	\$ 5,106,136	1.2%	\$ 5,043,403	2.5%	\$ 4,919,729	6.1%	\$ 4,635,343	6.5%	\$ 4,351,304	3.4%	\$ 4,209,659

FY 2018 Actual	FY 2018/2012 % Change	FY 2012 Actual
\$ 4,892,099	26.1%	\$ 3,880,729
157,482	12.6%	139,882
267,380	42.2%	188,073
1,325	35.9%	975
\$ 5,318,286	26.3%	\$ 4,209,659

Yearly Comparison:

	FY 2018 Fiscal Year Actual	FY 2017 Fiscal Year Actual	FY 2018/2017 % Change
REVENUES COLLECTED:			
Comp Object 3175 - License & Registration Fees	\$ 4,892,099	\$ 4,754,454	2.9%
Comp Object 3175 - Texas.Gov Fees	157,482	\$ 155,326	1.4%
Comp Object 3717 - Administrative & Civil Penalties	267,380	\$ 195,656	36.7%
Comp Object 3775 - Returned Item Fees	1,325	\$ 700	89.3%
Totals	\$ 5,318,286	\$ 5,106,136	4.2%

Texas State Board of Plumbing Examiners

Period	FTE Type	FTEs Requested	FTEs Granted	Total FTE's for Biennium
				25
FY 2003	Statewide Budget Cut-Lost 1 Chief Examiner, 1 Field Investigator and 1 Examination Helper		Statewide Budget Cut of 3 FTEs	(3)
<hr/>				
FY 2004-2005				22
<hr/>				
FY 2006 2007		2 Addl Field Investigators	Rec'd 1 Addl Field Investigator	23
<hr/>				
FY 2008-2009		1 Addl Admin Assistant (ENF)	1 Addl Admin Assistant (ENF)	24
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FY 2010 - 2011		1 Licensing Tech & 2 Field Investigators	2 Field Investigators	26.3 to 27
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FY 2012 - 2013		FTE Cap Increase for Licensing Tech & 2 Field Investigators	FTE Cap Increase for Licensing Tech	27
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FY 2014 -2015		1 Licensing Tech & 3 Field Investigators	1 Licensing Tech & 3 Field Investigators	31
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FY 2016 -2017		1 Deputy Executive Director, 1 Examiner, 1 Licensing Technician, 1 Admin Asst (ENF), 2 Field Investigators	1 Examiner & 1 Field Investigator	33
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FY 2018 - 2019	Statewide Budget Cut-Lost 2 Field Investigators	1 Accountant II, 1 Admin Assistant (ENF), and 1 Field Investigator	Statewide Budget Cut of 2 FTEs	(2)
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FY 2020 - 2021		1 Director, 2 Examiners, 1 Accountant II, 2 Addl Field Investigators, 1 Customer Service Rep (ENF) and 3 FTEs for Consumer Education/Public Awareness		
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Total Current FTE Cap

31

TSBPE STAFF RESPONSE

Plumbing is a profession that significantly impacts the health, safety and welfare of the public. The Texas State Board of Plumbing Examiners (“TSBPE”) has provided quality oversight of the plumbing industry in furtherance of its mission to ensure the safety, health, and welfare of the public as it relates to the usage of plumbing systems.

Issue 1

Recommendation 1.1 – Transfer the regulation of plumbers to the Texas Department of Licensing and Regulation, and reconstitute the independent plumbing board as an advisory board.

TSBPE Staff Response: Board staff disagrees with this recommendation.

1.1.1 Critical lack of resources. As reflected by the chart on the previous page, the Board has, for nearly a decade, experienced steady growth in its responsibilities due to Texas’ prosperous and rapidly-growing economy and sharp population growth which has fueled construction and driven up the need for licensed plumbing professionals in the industry. Agency appropriations and staffing levels have not kept pace.

Board staff asserts the Board’s deficiencies are due to a critical shortage of resources. The Board has done well with the appropriations it has received, and has consistently poured money back into the General Revenue Fund (most recently 2.6 million), over and above its appropriations. Board staff does believe that wholesale change is needed in order to address the critical shortage of plumbers in the industry, and welcomes several changes recommended by Sunset that will assist the Board’s efforts in that regard. However, after being consistently denied even modest increases in its budget to restore staffing and budget cuts, let alone grow staffing levels to meet continually rising demands, the Board has understandably become reluctant to make massive appropriations requests of the sort wholesale change would require.

Sunset staff, at Issue 1, pg. 11, takes the position that the Board failed to adequately address its customer service workload by requesting additional employees. However, in the three previous biennia prior to this year, the Board requested a licensing technician position whose primary duties would include answering customer service calls to the Licensing Department – precisely the customer service role highlighted by Sunset staff. All such requests were denied. As a result, the Board shifted its strategy and this year requested a customer service representative in its Enforcement Department. However, the Board currently has an employee in its Licensing Department that splits their duties between Licensing and Enforcement. Approval of the new Enforcement Department position would allow the split employee in Licensing to dedicate their time solely the customer service workload in Licensing, and would operate to improve staffing levels in that department.

Without sufficient staffing, the Board filled in gaps by utilizing temporary workers, which tends to promote turnover. Temporary workers require training from other staff members, inefficiently distracting them from their regular duties. Due to turnover, temporary workers also have diminished capacity to acquire institutional knowledge and become more effective in their tasks.

The Board was also forced to offer more overtime compensation (approximately 1,000 total hours per month, on average), in order to stretch its workforce to the demands of the agency. These efforts achieve short term gains, but are ultimately unsustainable. Specifically, in March, June, and September of 2018, the Examinations Department and related support staff worked three Saturdays providing examinations in order to reduce the queue for the exam. The Board is currently in the process of scheduling additional Saturday examinations dates slated for spring, 2019.

In its Strategic Plan for 2019-2023 TDLR trumpets, utilizing a chart, its licensee-to-employee ratio as a marker of its efficiency as an agency. Specifically, TDLR touts its ratio of 1,766 licensees for every employee of TDLR. Sunset staff, at Agency at a Glance, pg. 7, recites the licensee count of TSBPE as of July, 2018 as 58,624. However, while this captures the “people” count of the licensee population, it does not capture the total licensing workload, which includes the supplemental endorsements and registrations maintained by the Board (excluding license ranks subsumed under a higher license rank (a Master Plumber retains their Journeyman Plumber license in the system)).

When including these supplemental license types (8,150 as of July 15, 2018), the total current license count is 66,774. Application of TDLR’s license-to-FTE ratio to this figure results in a Board equivalent of 37.8, over 20% more employees than the Board currently has, and more employees than the Board has had at one time in its entire existence. Moreover, as discussed, *infra.*, TDLR does not administer its own examinations. Therefore, a more accurate comparison of staffing levels would ignore the Board’s examinations staff of 4.5, meaning the Board has a TDLR-equivalent of 26.5 employees; meaning that application of the license-to-FTE ratio would result in over 40% more employees than the Board currently staffs.

Although Sunset staff does concede the agency has “limited resources”, Sunset staff was not tasked with, and has not considered, what the Board might be able to accomplish with increased funding, and armed with the valuable recommendations and insights of the Sunset process. Board staff asserts that, particularly in light of chronically low levels of funding, the Board should be given the opportunity to promote reforms within the agency, rather than relying on past performance without appropriate resources to conclude, based upon supposition alone, that TDLR would better protect the public.

1.1.3 Resolving Industry staffing issues is a concern, but must not come at the expense of the public’s health and safety. The Board has, for a long time, been asked to do more with less. When “treading water” due to critical shortages is a daily struggle, it is difficult to pursue and realize sweeping reforms to address industry staffing needs.

Moreover, fulfilling industry staffing needs and guaranteeing a licensed plumber for every available plumbing job across the state is not the statutory charge of the Board. Safeguarding the health and safety of the public by ensuring that a person entrusted with a license issued by the Board is actually competent and fit to perform plumbing in the field is the agency's mission.

Industry staffing needs are an important consideration, but should not come at the cost of the public's health and safety. The framework of recommendations envisioned by Sunset staff allows industry staffing needs to inform and dictate appropriate regulation and safety, by removing examination requirements.

These efforts would doubtless push additional plumbers into the field, but would expose the public to risk at the same time by elevating quantity over quality. Board staff believes that quantity should be increased by adopting many of the statutory changes identified by Sunset, and expanding the Board's examinations operations to increase output. However, quality, in the form of established minimum competency of the design and function of a basic plumbing system by the plumber, should remain. Expansion of the Board's examinations operations will require investment and growth in the agency.

Board staff, knowing that the Sunset process was forthcoming believed, perhaps naively, that the Sunset process would shine a light on the critical shortage of resources experienced by the Board, and would prompt an increase in appropriations, in addition to the other helpful suggestions of Sunset. Regrettably, this Sunset review was delayed by two biennia.

1.1.4 Transferring operations to TDLR does not substantially improve the fiscal outlook to the state. While the fiscal implications of adopting Recommendation 1.1 are portrayed by Sunset staff as positive, if one unpacks these implications and reviews them closely, it would appear that the savings to the state appears to be owing less to the managerial efficiencies of being "housed" at TDLR, and more to eliminating the duties associated with administering examinations by outsourcing examinations to a third party administrator, including elimination of the practical exam.

While the Sunset staff report does not explicitly state this, Board staff believes a straightforward reading of the entire report implies that an assignment of its operations to TDLR would involve eliminating the self-administration of all examinations (Summary of Sunset Staff Recommendations, pg. 3; Issue 1, pgs. 16, 17; Issue 2, pg. 29; Sunset staff recommendations 1.1, 2.4, 2.10). The natural result of implementing Sunset staff recommendations 1.1, 2.4 and 2.10 and eliminating self-administration of all examinations is that the duties of the Examinations Department would be outsourced, and all of the Board's employees hired as examiners would be eliminated.

This dynamic would be in keeping with Board's staff understanding of TDLR and its operations, in which TDLR does not administer its own examinations. Specifically, upon information and belief, TDLR has a preexisting relationship and uses a third party administrator,

PSI Services LLC, to administer written examinations for several of its licensing programs, including its electrician and heating, ventilation and air conditioning (HVAC) programs. Board staff presumes that TDLR would similarly utilize this same third party administrator for the provision of the plumbing examination.

The Sunset staff report supports this conclusion when, at Summary of Sunset Staff Recommendations, pg. 3, it concedes each of the Board's employees, other than its examinations staff, would need to be maintained at TDLR (see also Issue 1, pg. 17). The Sunset staff report further notes the total compensation for its examiners positions totals \$263,000. Meanwhile, after substantial initial costs of \$250,000 to the state are disregarded, the year-to-year cost savings attributed to the move is \$407,535 each year. After removing this employee compensation total, the year-to-year savings for the state totals \$144,435.

Board staff disagrees with some of the recommendations made concerning the examination as described herein, *infra*. However, if these recommendations are nevertheless adopted, the Board could effect 64.5% of the same cost savings presented by Sunset staff by eliminating its examiners just as would TDLR, and without incurring any of the costs associated with making the transition. While Sunset staff may choose to describe TDLR's ability to eliminate employee positions for agency duties that have been eliminated as "process improvements", Board staff asserts that these process improvements are not unique to TDLR, and the Board could similarly implement same.

Board staff surmises that the balance of the remaining \$144,535 year-to-year savings is derived from no longer needing the Board's current facility. However, maintaining a separate facility for the Board's functions arguably does have some intrinsic value in the event of a natural disaster, by reducing the state's exposure to such disasters, spreading out state operations. With the separate facility, the Board would maintain its ability to assist other agencies that might be compromised by a disaster.

Moreover, to the extent Sunset staff's recommendations are adopted and the Board's examinations are outsourced to a third party, including elimination of the practical examination, the requirement of a facility with the specialized tools, materials and equipment to perform the practical examination would be eliminated, and the Board's operations could be located anywhere at that point. In that event, given the long-term vision for the Capitol Complex, the Board's operations, like many other agencies, would likely be moved to that complex, obviating any savings connected to the Board's current facilities.

Meanwhile, the Sunset staff report is wholly silent with respect to any costs associated with securing a third party to administer examinations. Board staff asserts that a meaningful evaluation of the fiscal implications in eliminating the self-administration of examinations and utilizing a third party administrator should include analysis and frank discussion of the costs for third party administration.

1.1.5 Similarities with TDLR. The Board has worked well with TDLR in the past, and holds the agency and its leadership in high regard. However, Sunset staff's

recommendation 1.1 is predicated on the supposition that TDLR will inherently do a better job, when the Board and TDLR share many similarities, and many of the criticisms levelled at the Board are also true of TDLR. Board staff draws upon these similarities, not for purposes of critiquing TDLR or its performance, but for purposes of highlighting the seeming incongruity of some comments in the Sunset staff report.

Sunset staff, at Issue 1, pg. 11, notes Board staff's criticisms of its licensing database system, Versa. Sunset staff further criticizes the Board for its perceived failure to fully utilize Versa features, and failure to seek training on its use. However, TDLR, in its recent *Strategic Approach for the Development of a Licensing and Regulatory System – Executive Summary*, recently said of Versa: “[t]he Versa product has been very challenging for the agency . . . Versa is clunky to maintain, vendor support is slow, resources to help with the system are virtually impossible to find, and the system has turned out to be costly to maintain” (underlined emphasis added).

Sunset staff, at Issue 3, pg. 31, and by and through recommendation 3.4, takes the position the Board has somehow failed to safeguard the public by failing to adopt a formal written policy by rule governing the prioritization of complaints. Board staff agrees with the recommendation to adopt a formal policy by rule, but strenuously disagrees that it has exposed the public to risk. The Board prioritizes complaints effectively, despite there not being a rigid formal policy. Sunset staff implies that adherence to a formal prioritization policy somehow removes subjectivity in prioritizing complaints. While guidelines for prioritization are helpful, ultimately, a person must classify the complaint, and subjectivity cannot be eliminated entirely. In many instances Board staff actively responds to complaints that would be a top priority faster than any complaint processing procedure containing prioritization could occur, resulting in a de-escalation of priority before a priority was ever assigned, as discussed hereinafter, *infra*. However, Board staff would note that TDLR similarly does not appear to have implemented by rule a formal framework for the prioritization of complaints.

Sunset staff, at Issue 1, pg. 13, and by and through recommendation 1.2, also takes issue with the Board's handling of criminal background checks. While the Board is appreciative of Sunset staff's insights regarding the Board's authority to conduct fingerprint background checks, and plans to implement same as discussed hereinafter, *infra*., Board staff would note that TDLR also does not conduct fingerprint-based background checks of the licensees in its electrician and HVAC licensing programs, despite being similarly authorized to do so currently.

Sunset staff, at Issue 3, pgs. 32, 33, and by and through recommendation 3.1, deems as insufficient the Board efforts to make the disciplinary history of its licensees available to the public. Specifically, Sunset staff believes the public should have the ability to search for and review disciplinary history information online. Board staff agrees with the recommendation and plans to implement same. However, Board staff would note that TDLR presently does not offer disciplinary history online for its licensees holding an electrician's license or HVAC license. The Board's public-facing online system presently provides the individual's name, license status, and phone number.

Sunset staff, at Issue 1, pg. 13 describes as burdensome the Board's rules requiring a Master Plumber to include their license number on advertisements and on service vehicles utilized by the plumbing company. Board staff would note that TDLR imposes substantially similar requirements on its electrical contractor licensees (16 Tex. Admin. Code § 73.51(d), (e)) and HVAC contracting companies (16 Tex. Admin. Code § 75.71(g), (h)). Moreover, many requirements concerning signage displayed on service vehicles are already requirements of many municipalities and other political subdivisions.

Sunset staff, at Issue 1, pg. 13 describes how the Board's complaint resolution time grew to over 6 months in 2017. Board staff would note that for FY2018, complaint resolution time was reduced to 5.7 months, bringing the four-year average from 2015-2018 to 5.65 months. Sunset staff, at Issue 1, pg. 14, recites TDLR's complaint resolution time as 4.7 months for 2017, or 20% less than the Board's average. While the figure recited for TDLR is obviously better, Board staff asserts the two figures are not shockingly disparate, particularly in light of the Board's lack of staff to improve those figures. Specifically, the Board, in its most recent Legislative Appropriations Request, has requested two additional Field Representatives to assist in this regard. Moreover, the Board presently has two Field Investigator positions that are unfilled. With additional staffing, and the allowance for Plumbing Inspectors to serve as Field Representatives, as recommended by Board staff in connection with Sunset staff recommendation 3.1, Board staff is confident complaint closure times will improve. Regardless, Board staff believes additional context concerning TDLR's figures would offer a more meaningful comparison and, in particular, what the complaint resolution figures pertaining to TDLR's electricians and/or HVAC programs are.

Recommendation 1.2 – Require the agency to obtain fingerprint background checks for all applicants and licensees.

TSBPE Staff Response:

Board staff agrees with this recommendation and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

Board staff is particularly appreciative of Sunset staff's insights regarding the Board's eligibility to participate in the Federal Rap Back program, launched in June of 2014, and allowing for alerts to a registered organization, anytime an event is triggered concerning an individual's criminal background when that individual has registered with the organization and submitted their fingerprints (for example due to a new criminal conviction). The Board knew of the program, but was admittedly unaware that the Board could participate by and through participation with the Texas Department of Public Safety.

Recommendation 1.3 – Direct the Agency to work with TDLR to develop regulatory processes and rules.

implementing biennial renewals, only to be converted into TDLR's new "omnibus" licensing system, would be a wasteful use of valuable state resources.

Recommendation 2.7 – Remove the separate renewal for endorsements.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

Recommendation 2.8 – Eliminate the responsible master plumber designation and create a plumbing contractor license.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

In fact, during the Sunset review, Board staff signaled that it would welcome the change, and had been considering it few several years prior to the review.

Recommendation 2.9 – Authorize the agency to issue temporary licenses.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

Recommendation 2.10 – Direct the board to revise its exams to eliminate practical components.

TSBPE Staff Response:

On November 14, 2018, the Board met in a special meeting and the Board Members voted to take the position that the practical examination should be maintained, and to wholeheartedly disagree with this recommendation.

2.10.1 Streamline and retain the practical examination. Board staff disagrees with eliminating the practical examination in its entirety, but does recommend making substantial changes to reduce and streamline the practical examination by simultaneously eliminating some practical examinations and transitioning elements of the practical examination to a feature-rich

digital written examination. The remaining practical exam would be efficient and focus only on those minimum essential skills necessary for licensure, as further outlined in the Sunset Implementation Plan accompanying this response.

Board staff believes a practical examination is required to ensure baseline competency in the field, for the public's safety and protection. The streamlined version of the practical examination recommended by Board staff would continue to test core competency in measuring, cutting, and assembling piping, and test the basic design skills necessary to determine the needs of a plumbing system, and design and construct it in a realistic setting. While documented work hours training in the field are important to build competency, the practical examination ensures that competency has been achieved. A written examination demonstrates knowledge. The practical examination tests essential skills, and whether the candidate has an understanding of the design and function of a basic plumbing system.

2.10.2 To protect the public, plumbers must be held to a higher standard than other tradespeople, and must understand the design and function of a plumbing system. Given Sunset staff recommendation 1.1, a comparison with TDLR's examination of the electrician and HVAC trades is a natural one. TDLR does not require a practical examination for electricians or HVAC licensees. While that approach may be sufficient to protect the public in those trades, plumbing inherently poses a heightened risk of harm to the public, deserving of greater scrutiny of prospective plumbers through the practical examination, and ensuring they are competent in the field.

Water is life, and plumbing is a pillar of civilization. Defective plumbing and lack of clean potable drinking water is catastrophic and promotes the spread of illness and disease. Defective plumbing of fuel gas can result in fires and explosions. Contaminated medical gas in a dentist's office, hospital, or other healthcare setting can cause serious injury or death.

Improper electrical work and HVAC work is a serious matter, and can also result in injury or death. However, when failures occur, the effects are typically limited to that system, and do not result in additional "fallout" to others. Conversely, improper plumbing can result in injury or death not just to the immediate users of the plumbing system, but can have a cascading effect, causing significant harm to persons, property, and the environment outside of the immediate plumbing system. The plumbing system of a one-family dwelling utilizing public water and/or sanitary sewer services is not an island. The water service supplying the home is part of a unified, pressurized system, and is interconnected with the other users of the system. Contamination of the potable drinking water caused by dangerous "cross-connections" can travel "upstream" through the system and affect other unsuspecting users.

Cross-connections are links through which it is possible for contaminating materials to enter a potable water supply. The contaminant enters the potable water system when the pressure of the polluted source exceeds the pressure of the potable source, referred to as "backsiphonage" or backflow.

An unfortunate recent example of this might be the City of Corpus Christi which has experienced several significant impacts on its beleaguered municipal water supply in recent years, including four major incidents in a span of 17 months, resulting in boil water notices, and even a total ban on usage. Specifically, on December of 2016, Corpus Christi was forced to impose a temporary ban on use of its tap water, when an industrial user in the area inadvertently caused a backflow event, allowing an industrial chemical to reverse course and enter the public water supply. While the situation arose from a single plumbing system, the interconnectedness of the system caused its effects to be felt on the water supply system-wide, putting all users at risk. Even when proper measures are in place to detect and remediate backflow events, water bans and boil water notices can have significant disruptive effects on local communities, and entire municipalities.

Plumbers do not intend to promote backflow events and cross-connection hazards. These situations are not obvious, even to a Plumber's Apprentice with years of experience. Cross-connections and backflow events arise from a failure to understand the proper design and function of the plumbing system, ultimately stemming from an underlying failure to understand the science and mechanics of plumbing.

A plumber whose knowledge is limited to the components of the plumbing system, and who does not understand the overall design and function of the plumbing system and how its proper installation guarantees sanitation, will not properly identify cross-connections, and will fail to deploy appropriate technological solutions to eliminate or reduce these hazards. The practical examination ensures the plumber is knowledgeable of the design and function of a basic plumbing system, and can properly identify and resolve these potential hazards.

Additionally, as a part of the practical examination process, the candidates receive a cross-connection demonstration, utilizing the Board's proprietary cross-connection prevention demonstration unit. The unit houses a display of see-through fixtures and piping which demonstrates, viscerally and in an approachable manner, how easily our drinking water can be inadvertently contaminated by improperly-installed plumbing systems. The Board's Examiners hear often from plumbers for whom the demonstration struck them as an "a-ha" moment that they would never forget. Plumbers who do not take the practical examination would fail to receive this important demonstration.

Improper installation and defects in plumbing are also different than some other trades because the defect is often a latent one that is not easily discoverable. Defects in electrical and HVAC tend to present themselves immediately or soon after the defect occurs. Defects in plumbing however often do not result in a failure until days, months, or years later. The ill effects of the defect may not be immediately attributed to the plumbing system, and may only be identified after accounts of illness or death are woven together, and a common source is identified.

Identification and resolution of latent defects is also considerably more burdensome and expensive in plumbing as compared to defects of other trades such as electrical or HVAC. Portions of the electrical and HVAC systems susceptible to defects are nevertheless

usually accessible, long after installation. An HVAC system may be accessed on the exterior of the building and/or in an attic. The electrical system can be diagnosed and is similarly accessible through access panels, mechanical rooms, electrical conduits, or access in the attic. Other than fixtures and traps however, most plumbing infrastructure is ultimately concealed, and difficult and expensive to identify and resolve defects. Exterior water service and sewer lines are buried underground, requiring excavation. Structures with a foundation typically have lines running under the building covered by concrete, and the other interior materials of the structure, requiring tunneling under the home, or for flooring to be removed, and concrete chipped away. Interior walls may need to be opened up to expose the latent issue.

Sunset staff rightly mentions in its report the continued threat of water borne pathogens such as Legionnaires' disease, which is typically spread through plumbing systems, when the end user inhales contaminated water that become atomized, such as in a shower. On June 9, 2017, the Centers for Disease Control, in its *Morbidity and Mortality Weekly Report*, demonstrates the relevancy of these concerns. The data compiled from 20 states and 1 large U.S. city revealed 2,809 confirmed cases of Legionnaires disease in a single year. Of these cases, 533 were indicated to have occurred in a healthcare setting, such as a hospital or nursing home setting which tend to have a large plumbing system. Large plumbing systems that are not properly designed to pass and circulate water through the system may contain "dead zones" with stagnant, often warm water, that can give the *Legionella* bacteria a home in the plumbing system to thrive, and spread the disease.

While Texas and the world has come a long way towards guaranteeing public sanitation and health with properly designed and installed plumbing systems, serious effects and dangerous conditions arising from improper plumbing are not mere problems of yesteryear. For the foregoing reasons, Board staff recommends retaining the practical examination, to ensure prospective plumbers understand the design and function of the overall plumbing system, and can adequately safeguard the public's health.

2.10.3 The practical examination exposes plumbers insufficiently trained through work-hours' requirements. The practical examination is arguably more important now than it has ever been, due to practice specialization and segmentation within the industry. Like other industries and professions, the local plumbing company operating as a general practice and performing a wide-variety of work has been replaced with companies having a regional or statewide reach, and a more narrowly focused role in the industry.

Some companies focus on residential repair only, while others focus on large commercial projects. A sizeable segment dedicates itself to residential new construction. Many jobs are subcontracted out to companies who focus on the scope of work tailored to that specific sub-contracted work. One company may focus entirely on drain cleaning and clearing obstructions in the sanitary sewer line. Another company may specialize in and perform only work involving the replacement of water heaters, or perhaps strictly tankless water heaters. Still another company may work in the residential new construction industry installing only fixtures, and specializing in the volume and speed that that work demands.

The underlying work performed by Plumber's Apprentices and lower ranking licensees in the field reflects this specialization and segmentation. A worker in training may become highly skilled in a narrow portion of the practice, but lack the diverse skillset that establishes competency in the overall design and function of a plumbing system. A worker in residential new construction may spend all of their time installing faucets and water closets (toilets). That worker likely acquired exceptional skill in those narrow tasks, but lacks the generalized skill and knowledge that a diverse scope of work and training affords.

This skills and knowledge gap can be closed with education and training; another reason Board staff believes promoting and incentivizing formal and comprehensive training in an apprenticeship program or in pursuit of an applied science degree is important, as discussed in conjunction with its Career Paths Initiative outlined below. However, the practical examination ensures that any such gap has been closed, and that the individual seeking to be licensed by the Board has a fundamental understanding of the overall design and function of a basic plumbing system.

Unfortunately, the Board's Examiners see this skills and knowledge gap displayed on a daily basis in the examinations center. Individuals may meet the work-hours requirements, but some are completely overwhelmed by the examinations process. The overall passage rate of 70% reflects this lack of preparedness. Given this passage rate, a sizeable portion of the Board's examinations efforts are occupied by individuals having to re-take the exam after having failed portions of it previously.

Even those candidates who pass the written examination and may understand the components and "puzzle pieces" of the plumbing system are ill prepared for the practical examination, exposing a fundamental lack of understanding of the design and function of a plumbing system, and how those pieces fit together and complete the "plumbing puzzle."

In FY 2018, 670 individuals took the Tradesman Plumber examination, which generally requires 4,000 documented hours training as a Plumber's Apprentice. Of those individuals, 249 (37%) failed the examination. Of those individuals that failed the examination, 89 (35%) passed the written examination but failed the practical examination.

Meanwhile, in FY 2018, 908 individuals took the Journeyman Plumber examination, which generally requires 8,000 documented hours training as a Plumber's Apprentice. Of those individuals, 177 (19%) failed the examination. Of those individuals that failed the examination, 87 (49%) passed the written examination but failed the practical examination.

These statistics highlight the importance of retaining the practical examination. The Board's Examiners routinely see individuals pass the written examination but then, in the practical examination, design and construct a plumbing system that would allow contaminated water and the contents of a 2nd story toilet to flow into a downstairs tub or shower below it, or that lacks venting to allow the plumbing system to function properly whatsoever. An individual

who does not demonstrate competency in the basic design and function of a plumbing system should not be licensed and allowed to perform plumbing work unsupervised.

Sunset staff's report, at Issue 2, pg. 21, regards the practical examination as a relic of the past, made obsolete and replaced by the "extensive training" of work hours' requirements. However, the report fails to consider that, due to specialization and segmentation in the industry, these work hours, while important, have been diluted, and do not offer the diverse training and skillset they may have afforded previously. As a result, the practical examination is arguably more important than it has ever been to protect the public.

2.10.4 The practical examination ensures the legitimacy of Plumber's Apprentice work hours' requirements, and deters fraud. The practical examination also operates as an important check on the on-the-job training process by culling individuals who may be inflating or fabricating their work experience. The public is protected by preventing such individuals from receiving a license. Additionally, the practical examination aids the Board's enforcement activities by exposing individuals who may be participating in such fraud, including licensed individuals fraudulently certifying such work hours.

An individual seeking to take the Tradesman Plumber examination generally must have 4,000 documented hours training as a Plumber's Apprentice. An individual seeking to take the Journeyman Plumber examination generally must have 8,000 documents hours training as a Plumber's Apprentice. Hours are documented by and through an Employer's Certification Form, published by the Board, where the candidate's employer (typically the Responsible Master Plumber), fills out the form and certifies the amount of hours performed by the individual.

Knowledge that an applicant will be subjected to the practical examination acts as a deterrent on fraudulent behavior with respect to documenting work hours' requirements. Its removal will likely result in substantially more fraud and abuse in claiming on-the-job training hours. Ensuring the accuracy and genuineness of on-the-job training hours will become all the more important given Sunset staff's other recommendations to begin allowing apprentices to perform work without the direct supervision of a licensee. Without direct supervision, a person may be emboldened to inflate or fabricate their work hours, particularly if they are hopeful to "study up" and take the written examination, knowing there is not a practical examination to test their skills and knowledge of the design and function of a plumbing system.

2.10.5 Medical Gas. Plumbers working on medical gas piping systems are required to obtain a supplemental endorsement known as a Medical Gas Endorsement. Eliminating all practical examinations, as proposed by Sunset staff by and through recommendation 2.10, would also mean the elimination of the medical gas practical examination, which is of critical importance and demonstrates competency in this very sensitive specialty. Removal of this practical examination in particular will expose the public, many of whom are vulnerable, to risk of harm.

Medical gas delivers gas in many healthcare settings, such as hospitals, dentist's offices, medical offices, and nursing homes. Medical plumbing also involves suction and

vacuum lines, where medical waste and debris are carefully removed from the immediate treatment area and are properly disposed of. While water lines are often forgiving, the margins of error in medical gas are exceptionally small and unforgiving. Lines can be crossed, delivering the improper substance to the patient. Gas lines in a medical setting often convey oxygen or a mix thereof. Leaks would not only deprive the patient of the appropriate flow of air, but would generate the risk of fires or explosions. Vacuum lines can be undersized or become blocked, resulting in improper waste removal, or the discharge of debris “upstream.” Given their setting and use, failures of the medical gas lines are catastrophic and can expose individuals, many of whom are physically vulnerable, to harm or death.

Piping in medical gas settings must be clean and free of particulate, for the health of the patient. Special piping must be utilized which has been inspected and sealed by the manufacturer, to ensure sterility. Time limits for installation apply as soon as the piping seals have been removed.

The joining of ordinary copper water pipe typically entails soldering the connections by heating and applying a solder filler material which, once cooled, adheres to the copper, forming a unified seal. However, assembly and joining of piping in a medical gas setting has very small tolerances for error, and requires stronger, cleaner, and more seamless joints.

Brazing is similar to welding. It entails super-heating the piping (approx. 1350°F) until the solidity of the copper or other piping metal denatures and the metal is in the transitionary phase of becoming a liquid. Simultaneously, the brazing filler material is applied, allowing the two metals to coalesce and bond with one another. The bond created is more than a mere a surface-level bond, penetrating the copper or other base piping metal. The process is a difficult one requiring a fair amount of skill. Too forceful a braze will puncture the interior walls of the pipe, destroying the seal, and exposing the interior to particulates. Too light a braze will not create a sufficient seal or bond.

Recommendation 2.11 – Direct the board to simplify the timeframe for obtaining continuing education.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

Issue 3

Recommendation 3.1 – Eliminate statutory qualifications for field investigators.

TSBPE Staff Response:

Board staff disagrees with this recommendation, but recommends enlarging the pool of qualified candidates to fill its Field Investigator positions to include Plumbing Inspectors. Specifically, Board staff recommends allowing any licensee of the Board to serve as a Field Investigator. Presently, one must hold a “license as a plumber” in order to serve as a Field Investigator. A Plumbing Inspector would be just as qualified as a person holding a plumbing license to be a Field Investigator.

3.1.1 Non-professionals would be ill-equipped to perform investigations, and training would not alleviate the deficit. Board staff disagrees however with the approach to completely remove all statutory qualifications. Such a move, while seemingly allowing the Board flexibility to hire whomever they want for the position would, as a natural product of the appropriations process, always trend towards allowing the lowest classified FTE position required for the position. An FTE position without the requirements of licensure will be assigned a lower job classification with lower pay ranges. As result, this seeming flexibility is illusory, and most if not all of the Board’s Field Investigators would have no background as a plumbing professional as a result of the change.

Currently, the Board maintains on its staff a group of professional plumbers stationed throughout the state in the field as its Field Investigators, who investigate complaints, generate findings, and transmit them for enforcement review, currently by the Board’s Enforcement Committee.

For purposes of this response, Board staff assumes that Sunset staff proposes to alter this model, and mimic the approach of some other agencies that conduct field investigations where the person out in the field is not formally trained in the profession. Instead, the individual has just enough training to compile appropriate information and evidence and transmit it back to the agency where, presumably, more experienced individuals or professionals in the industry review the information and make conclusions about potential violations.

Board staff fully understands the natural efficiencies of such a model. However, Board staff asserts the plumbing industry is a unique profession which is the exception to that seeming rule, and requires licensed professionals as investigators out in the field to detect violations and gather relevant evidence.

In many professions and trades, the customer visits the professional to receive services at their office. A large plumbing company may have a central administrative office, but many smaller companies have no formal office whatsoever, and many regard their service vehicle as their office. Instead, the plumber delivers their services out in the field, on jobsites. The work that takes place does not generate business records of the sort that are easily gathered and would become the documentary evidence of investigations by other agencies. Investigation in the field often requires inspection of and interaction with the plumbing system that does not easily lend itself to a model where an individual without formal training in the profession is given direction on what records to pull from the offender’s centralized office, and return it to “headquarters” for review.

The nature of the work is also extremely varied, and is not easily conveyed to a non-professional through training. Plumbing systems exist in nearly every type building, and in nearly every conceivable setting. The plumbing system may be a residential one-family dwelling, a large commercial facility, or a multi-million-dollar industrial factory. Depending on its age, the plumbing system may incorporate a “hodge-podge” of design elements and materials, as code requirements and plumbing technologies have evolved over time.

Suitable training of a non-professional would require certification of the individual in the various technical codes involved in the plumbing industry. Ironically, with these certifications, and a few Continuing Education courses, the individual could obtain their Plumbing Inspector license, and go work for a political subdivision where compensation would likely be higher than a non-professional investigator position would command. Instituting the non-professional investigator model would likely result in continual turnover of investigators, as these untrained individuals move on to work as a Plumbing Inspector once they receive training in the technical code requirements.

A non-professional, even with training, may not understand the design of the plumbing system, or how it functions. Many violations of code do not immediately present themselves as a problem as they might a patient in a medical setting. A non-professional looking at the system would not be able to detect these “silent killers” that have not yet resulted in damages or caused the system to overtly fail. A Field Investigator will often detect these serious defects and avert potential harm while out investigating a complaint that may have little to do with the defects detected.

Are there non-technical violations that a non-professional could handle? Yes, a non-professional could handle non-technical matters such as advertising violations, failures to disclose the Board’s regulatory oversight on contracts, or failures to properly mark service vehicles. However, given the technical cases require the professional plumber as the investigator to be in the field, utilizing non-professionals would send additional individuals into the field, duplicating travel and transportation costs. This dynamic would eliminate any efficiencies gained by utilizing non-professionals, and defeating the purpose. A professional investigator, assigned by region and embedded in the field, can efficiently handle non-technical cases at the same time as they are handling cases requiring technical expertise.

Investigating some complaints can also mean entering dangerous areas where serious injury may occur. The investigator is sometimes required to be in hazardous areas with combustible gases, or other harmful chemicals and substances, or other precarious areas to review the plumbing system, such as roofs, attics, crawl spaces, or earthen tunnels which could collapse. A non-professional investigator would not appreciate the gravity of these dangers or their warning signs, and should not be exposed to this danger for the substantially lesser pay they would command by not having the credentials of a plumbing professional.

3.1.2 Professional Field Investigators have intrinsic value and can better resolve complaints. Eliminating the role of professional Field Investigators would also destroy the “soft

power” wielded by the Field Investigator to resolve disputes without costly and burdensome formal disciplinary action by the agency. A Field Investigator, as a natural product of investigating the complaint, will communicate with many different parties, including a tenant, a property owner, affected third parties, the plumbers and plumbing company that is the subject of the complaint, and often a Plumbing Inspector for the local political subdivision. A seasoned and professional plumber has the experience and clout to ask probing questions and mediate the various issues in dispute.

A professional Field Investigator is able to harness their gravitas and the respect they command to mediate and resolve the dispute for the benefit of the customer, or other parties affected informally, obviating the need for formal agency enforcement action. Often a frank face-to-face conversation between the plumber and the Field Investigator is all it takes for the plumber to take corrective action and address alleged plumbing issues which may be hampering the functional use of the building, be it a one-family dwelling which may be temporarily uninhabitable, or a small business losing valuable profits while business operations are offline.

A non-professional will not have the knowledge or depth of experience to fill this crucial role. Instead, use of non-professionals will likely result in significantly fewer “voluntary compliance” dispositions, and conversely, increased resolution through costlier and lengthier formal enforcement actions, thereby promoting over-regulation of the industry. Increased enforcement actions may create glitzy enforcement metrics and more administrative penalties, but will detract from wielding this “soft power” to secure restitution and quick resolution of disputes for the benefit of the consumer.

Non-professional investigators will also be at a disadvantage with, and there will be a disparity of knowledge between, the investigator investigating the alleged violation, and the plumber with a professional background. The plumber may be motivated to leverage this position of power to mislead the non-professional investigator and avoid a potential violation and penalty.

Given the Board’s agreement with Sunset staff recommendation 3.6 to increase public disclosure and awareness of disciplinary actions, plumbers will become even more motivated to avoid the formal disciplinary process and take corrective action, rendering continuation of this “soft power” by the professional Field Investigator all the more important.

3.1.3 Professional Field Investigators promote succession within the agency. Elimination of the Field Investigators as a group of professional staff also would detract from the Board’s succession planning, all while Sunset staff simultaneously chides the Board for failing to have a formal written succession plan in place. The Board’s pool of Field Investigators brings professionals into the agency who learn the agency’s enforcement processes, and inject their valuable skills and experience obtained while out in the field into the agency’s culture. A Field Investigator has traditionally been a natural succession point for the Chief Field Investigator role, who oversees the day-to-day movements and activities of the other Field Investigators in consultation with the Director of Enforcement. A Chief Field Investigator has traditionally been

a natural succession point to the Director of Enforcement position. The Director of Enforcement, meanwhile, has traditionally been a natural succession point for the Executive Director position.

Field Investigators who spent years in the field also often transitioned to the Board's examination center, where they enjoyed a less hectic and more routine schedule administering examinations, revising examination content with their experiences in the field, and ensuring the next "crop" of plumbers was fit for service. Eliminating the Board's cadre of plumbing professionals in the Field Investigator role would eliminate the natural pathways of succession within the agency, which have safeguarded and preserved the Board's institutional knowledge. While the Board may not have had a comprehensive formal written succession plan in place before this Sunset review, it has always fostered a culture of succession through these natural succession paths. Maintaining a healthy pool of professionals within the agency in the form of its Field Investigators is all the more important given Sunset staff's recommendation 2.4, to essentially eliminate the examinations center, the only other place where institutional knowledge has traditionally been housed.

Instead, the Board's recommendation to enlarge the pool of candidates to include all plumbing professionals it licenses would maintain these natural succession paths, while at the same time arguably improving the candidates that do ascend in the agency, by including the crucial role and perspectives of a Plumbing Inspector who has spent years inspecting plumbing out in the field, either directly on behalf of a political subdivision as a public servant, or in connection with a private company contracting with a political subdivision for such work.

Recommendation 3.2 – Repeal the statutory enforcement committee.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

Recommendation 3.3 – Repeal the board's authority to issue criminal citations.

TSBPE Staff response:

Board staff agrees with this recommendation.

Recommendation 3.4 – Direct the agency to adopt a risk-based approach to investigations in rule, focusing on higher risk complaints first before other lower risk activities, such as jobsite compliance checks.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

As discussed, *infra.*, the Board prioritizes complaints effectively, despite there not being a rigid formal written policy. In many instances Board staff actively responds to complaints that would be a top priority in accordance with any such policy faster than any complaint processing procedure containing prioritization could occur, resulting in its de-escalation of priority before a priority was ever assigned. However, a formal policy with clear standards and universally applied will improve tracking and ensure accountability of such prioritization.

Recommendation 3.5 – Direct the agency to use informal settlement conferences in appropriate circumstances and better document its use of this enforcement tool.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

Board staff presently engages in informal discussions towards settlement with many alleged violators, which it regards as informal settlement conferences for purposes of Section 1301.5071 of the Plumbing License Law. However, realizing settlement from these discussions typically requires referral of the matter back to the Enforcement Committee for additional consideration. Board staff believes a more robust rule concerning Informal Settlement Conferences will add some needed formality to this informal process, and increase its usefulness. It will also play an important role in replacing the proposed elimination of the Enforcement Committee as a part of the settlement process.

Recommendation 3.6 – Direct the agency to publish disciplinary history and statistics online.

TSBPE Staff Response:

Board staff agrees with this recommendation, and plans to implement same, as further described in the Sunset Implementation Plan accompanying this response.

TSBPE SUNSET IMPLEMENTATION PLAN

In response to the Sunset staff report, Board staff additionally presents this Sunset Implementation Plan (“SIP”), outlining Board staff’s initial proposal for implementing Sunset staff’s recommendations. This SIP, like the Board staff’s foregoing response, has not been adopted or otherwise approved by the Board itself, and does not necessarily represent the Board’s position. Many initiatives outlined below will require the approval of the Board and/or legislative action to actually implement. However, Board staff offers this SIP as a comprehensive response, to address the needs and deficiencies of the agency, and to discuss the potential implications of Sunset’s recommendations on agency operations, as the Sunset Commission considers Sunset staff recommendation 1.1.

I. Examinations Initiatives

Goals:

- ❖ Increase examinations output to match demand, and eliminate all wait times for examination
- ❖ Transition provision of the written examination to a third party administrator
- ❖ Provide access to examinations throughout the state, with a preference to partner with technical and community colleges or apprenticeship programs
- ❖ Convert the written examination to a digital format
- ❖ Reduce and streamline use of practical examinations, focusing only on demonstration of minimum essential skills establishing competence in the trade
- ❖ Implement the following Sunset staff recommendations:
 - 2.3
 - 2.4

1. Transition the written examination to a third party administrator. With a better understanding of the alternatives now available in the marketplace for examinations, along with the peace of mind that many other jurisdictions have already successfully transitioned their examinations, Board staff agrees the time is right to transition the examination to a third party administrator with respect to the written exam. Administration of the written examination by a third party will allow for examinations to be administered throughout the state, improving access, and will allow the Board’s Examiners to focus on and increase output of the practical exam.

With respect to establishing testing locations, Board staff would prefer and encourage partnerships with technical and community colleges and apprenticeship programs, where lab space may be shared. In addition to efficiency gains by sharing resources, these partnerships would also serve the dual purpose of encouraging enrollment in apprenticeship and training programs, promoting rapid career advancement. Additionally, some technical or community colleges may also offer GED or other high school equivalency exams and prep work, which is presently required for enrollment in a formal apprenticeship or applied science degree program,

and may prevent these individuals from falling victim to a “diploma mill” to meet this requirement. Board staff anticipates these locations will also be a natural fit as a venue for Continuing Education coursework.

2. Transition the written examination to a digital format. A third party administrator will be equipped with the infrastructure and capability to quickly transition and provide the written examination in a digital format, offering more feature-rich content. A digital, media-rich format would allow for inclusion of audio, video, and graphics to interact with the test taker. With these capabilities, Board staff is confident several elements of the practical examination could be eliminated from the practical examination, and tested in a more efficient manner in the written examination.

3. Streamline the practical examination. The streamlined practical examination, free of elements that can be tested in the digital written examination, would test only those fundamental core concepts necessary to ensure minimum competence in the field.

The Board has already adopted interim measures to streamline the practical examination. Effective November 1, 2018, Tradesman and Journeyman examinations have been combined such that passage of the practical examination when taking the Tradesman Plumber examination (an optional license level) exempts the individual from the practical examination when taking the Journeyman Plumber examination, eliminating duplicative examinations.

The Board has also adopted to publish proposed rule amendments in the *Texas Register* to allow a test taker retaking the exam to retake only those portions of the examination that they previously failed, where failure of two or more components of the exam by rule currently requires the individual to completely retake the entire examination.

Board staff also recommends eliminating the Plumbing Inspector practical examination in its entirety, in addition to the practical examination for the Multipurpose Residential Fire Protection Sprinkler Endorsement. As a result, the new practical examination would consist of the following:

- a. Tradesman/Journeyman:
 - i. Shop (approx. 2.5 hours to complete)
 1. Measure, cut and solvent-weld plastic PVC pipe and fittings
 2. Measure, cut and prepare galvanized steel pipe
 3. Measure, cut and prepare copper pipe; assemble using a soft-solder weld
 4. Cut and join two sections of cast iron pipe with a “no hub” rubber and metal coupling
 - ii. Rough-in (approx. 3 hours to complete)
 1. Design and assemble the infrastructure and piping of a basic plumbing system in a mock-up residence built to scale
- b. Master Plumber:
 - i. Charts (approx.. 1.5 hours to complete)

1. Determine the proper sizing of piping for the water and natural gas service lines for a one-story structure
- ii. Waste Drain and Vent Diagram (approx. 3 hours to complete)
 1. Design and develop plans diagramming the waste, drain, and vent plumbing infrastructure of a three-story building
- c. Medical Gas Endorsement:
 - i. Brazing (approx. 1 hour to complete)
 1. Prepare copper pipe and perform a horizontal braze
 2. Prepare copper pipe and perform a vertical braze

4. Reallocate examination staff, and offer the practical examination at several satellite locations throughout the state. Without having to administer the written examination, the Board's current examination staff could redouble their efforts to administer the practical examination in the Austin Examination Center, and significantly increase output of the practical examination. In its most recent Legislative Appropriations Request, the Board made an exceptional request for two additional examiners, for a total of six examiners. This request included contemplation of a mobile examinations unit which would offer examinations around the state, and would also aid in times of disaster response. With locations throughout the state for the written examination, and Sunset staff's recommendation of a temporary license, the need for a mobile examinations unit would largely be obviated.

Instead, Board staff recommends and would seek to utilize the two additional examiners to open a satellite testing facility to conduct the practical examination. This location would operate as an initial "proof of concept" to then rollout additional examination sites for the practical examination, with the concept of four or five test sites distributed throughout the state. Given the continued after-effects of Hurricane Harvey, Board staff would recommend the Houston area for the first satellite test site for the practical examination. Board staff would similarly prefer and encourage partnerships with technical and community colleges and apprentice programs, where lab space may be shared, which may also overlap with administration sites for the written exam, and provision of Continuing Education classes. Depending on need and demand, Examiners may be dedicated to the satellite office full time, or may rotate between the Austin and Houston location, and eventually other satellite locations.

5. Temporary license status to bridge gaps between written and practical examination. Board staff recommends utilizing any temporary license authority the Board may be given in connection with Sunset staff recommendation 2.9 to offer temporary provisional license status to an individual who passes the written examination but has yet to pass the practical examination, particularly during times when queues for the practical examination exist. The provisional status would have an expiration date sufficient to allow for the taking of the practical examination, perhaps even a few times. Repeated or abysmal failures of the practical examination would constitute grounds for non-renewal or extension of the temporary status, or for revocation. The license would reflect the temporary or provisional status, as would the public-facing licensing system, to properly inform the public of the individual's lack of a full regular license.

II. Licensing & Industry Staffing Initiatives

Goals:

- ❖ Implement proposed statutory changes eliminating the Drain Cleaner, Drain Clear-Restricted and Residential Utilities Installer Registrations, reducing demands on the agency's licensing department
- ❖ Improve utility and coverage of existing licensees and registrants by allowing Plumber's Apprentices to perform certain types of plumbing work without the direct supervision of a licensee, including some plumbing work previously covered by the separate plumbing registrations recommended to be phased out
- ❖ Utilize proposed authority to set license terms by rule and improve efficiencies in Board licensing functions by extending the period of time for which a license is valid, resulting in fewer renewals to process, and fewer unintended lapses in license status
- ❖ Implement proposed statutory changes creating the new Contractor License, decoupling plumbing companies and plumbers, increasing market access and competition, and improving continuity of business operations in the industry
- ❖ Implement proposed new statutory temporary license authority to ease transition for out-of-state plumbers, and in times of disaster response
- ❖ Tie renewal of endorsements to the underlying license to which it applies
- ❖ Implement the following Sunset staff recommendations:
 - 2.1
 - 2.2
 - 2.6
 - 2.7
 - 2.8
 - 2.9

1. Utilize proposed new authority to allow autonomy of Plumber's Apprentices for certain limited tasks. Under existing law, a Plumber's Apprentice must be directly supervised by a licensed plumber. All work is also performed under the general supervision of a Master Plumber, who is responsible for ensuring proper design and the overall quality of the work performed. The Board has previously been flexible and has loosened supervision requirements over time. The direct supervision of years past entailed line-of-sight supervision by a licensee to actively oversee and direct the work of an apprentice. Sometime prior to 1992, the Board did away with strict line-of-site supervision, and took the approach that the licensee supervising the work needed to be "on premises" and conducting periodic review and offering guidance, and available to be summoned by the apprentice should they need assistance.

In the modern digital era where nearly everyone has a smartphone in their pocket that includes a camera to take pictures, and is often capable of simultaneous "video chat", a licensee these days is considerably more available to an apprentice in the field, than was previously the case in the industry. While these remote communications constitute general supervision that is no substitute for direct supervision, the utility of general supervision has certainly increased with the ubiquity of smartphones. Board staff agrees that the levels of supervision should be

decreased, and allow apprentices more autonomy in their work.

Board staff though believes supervision for some tasks is crucial both to protect the public, and to further the apprentice's career. An apprenticeship entails simultaneous work and training by a superior tradesperson. An apprentice left to their own devices is not being trained, and their potentially inferior work could harm the public. All work performed without direct supervision would still be performed under the general supervision of a master plumber. Additionally, at a minimum, Board staff believes that, even for tasks authorized to be performed by an apprentice without direct supervision, all such work must be evaluated by a supervising licensee upon completion. Apprentices should also have open lines of communication to a supervising licensee, to field any questions the apprentice might have while performing the work.

Board staff believes the following principles should inform the evaluation of what tasks may be performed by an apprentice without direct supervision: (i) the extent to which the work can be properly evaluated and tested by a supervising licensee upon completion; (ii) the potential for harm for any improper installation methods or materials that are not readily detectable by such evaluation; (iii) the level of risk to the public if the task were to be performed incorrectly and before the supervising licensee has had an opportunity to evaluate the work (iv) the time and expense of "unwinding" poor work and (v) the extent to which the apprentice has a licensee available as a resource remotely (general supervision) and whether those remote communications could reasonably guide the apprentice in their work.

Board staff would seek to use its new authority to set supervision requirements by rule to create two tiers of apprenticeship, allowing an apprentice to perform certain plumbing tasks without direct supervision. All work performed would still be subject to the Board's pre-existing standards requiring all licensees and registrants to only engage in that work for which they are qualified by education or experience to engage in.

The first tier apprenticeship ("Plumber's Apprentice 1" or "A1") would be allowed to perform all the same functions that the current Drain Cleaner-Restricted Registration is entitled to perform (clearing drains through existing openings, including removal of existing cleanout plugs and traps to access the system), without direct supervision. The A1 would require direct supervision for all other tasks. The Apprentice 1 would not have any examination or training requirements, to allow them to immediately acquire their registration and begin work in the field as soon as possible.

An Apprentice 1 would be entitled to apply for the second tier apprenticeship ("Apprentice 2" or "A2") after accumulating 2,000 work hours (or other board-approved coursework that counts towards said work hours), and taking a new required Continuing Education course designed as an apprentice orientation course. Said course would teach the career paths available to the individual, the laws and rules of the Board including what specific types of work the apprentice can perform and under what levels of supervision, and basic safety information, with a focus on the work they are allowed to perform without direct supervision. Individuals currently enrolled in a Department of Labor-approved apprenticeship program or pursuing an Associate of Applied Science Degree in plumbing would be exempt from the work hours'

requirements.

Upon attaining the Apprentice 2 registration, the A2 may perform without direct supervision all of the tasks that the current Drain Cleaner Registration and Residential Utilities Installer Registration is entitled to perform. The A2 would also receive the authority to perform the installation of all fixtures on residential new construction one- and two-family dwellings without direct supervision, other than gas-fired water heaters or other gas-fired appliances. The foregoing work must be reviewed and approved by a licensee prior to being put into service, or otherwise have passed inspection.

With respect to supervision of apprentices, Board staff would recommend considering imposing guidelines with respect to licensees supervision of apprentices, by imposing required ratios, akin to teacher-to-pupil ratios in a school setting, or regulated child care setting. For example, a Journeyman Plumber would be able to supervise more apprentices than a Tradesman Plumber. The jobsite setting (one-family dwelling vs. multi family dwelling, or residential vs. commercial) may also influence the applicable required ratio. Ratios and clear guidelines would assist the industry in ensuring compliance, and would benefit the public by ensuring apprentices are receiving adequate supervision and training for the tasks they must receive direct supervision by a licensee to perform.

2. Normalization of license requirements. Under current law, lessened supervision of apprentices is already allowed work in certain less-populated areas, allowing the individual to perform extensive work without direct supervision. To the extent the proposed recommendation to set direct supervision by rule and generally allow apprentices to perform certain tasks without direct supervision is adopted, Board staff would recommend making license requirements universal throughout the state, and eliminating these artificial and burdensome parameters establishing “supervision free zones”.

3. Triennial license. As related, *supra.*, Board staff would go a step further than Sunset’s recommendation of a biennial renewal period, and would seek to implement a triennial renewal period, extending the time period for which a license is valid, and lessening inadvertent lapses in licensure. The initiative would tie into the Board’s implementation of Continuing Education (CE) reforms, tying CE to the underlying license renewal period rather than a rigid universal calendar year, and also “syncing” all of these efforts to the industry’s triennial release of revised technical codes, which is the primary driver and undercurrent determining industry changes, and the new information a plumber must be aware of. The three-year license will substantially reduce the demands on the Board’s Licensing Department. Concerns about large licensure fees could be alleviated by requiring only a third of the total fee for issuance of the license, and then the remainder paid during the time for which the license is valid. The fee for the issuance of a higher license rank during the term of the underlying license could be reduced by the prorated term and amount remaining on the underlying license.

4. Implementation of contractor license. The proposed statutory change of a Contractor License would decouple plumbing companies from the licensed plumbers performing the work. This will provide for greater continuity of operations for plumbing companies, and decrease

barriers to entry into the marketplace for those individuals who may adept at business operations, but are not plumbers themselves. This new dynamic will increase competition in the industry, and better the industry. The Contractor License would also allow out-of-state companies to quickly enter the marketplace and offer disaster recovery response. This fundamental change in law will require substantial revisions to the Board's rules to eliminate the Responsible Master Plumber dynamic, and transition liability to the person holding the Contractor License. Board staff recommends removal of any business training course work presently required for designation as a Responsible Master Plumber.

5. Temporary license authority and disaster response. Board staff recommends utilizing any temporary license authority it is given to aid in the transition of plumbers from out-of-state, and particularly in times of disaster response. The Board would grant temporary license status for qualified individuals licensed by another jurisdiction, to bridge the gap between making the application, and taking the examination. The Board would also utilize its new authority establishing supervision of apprentices by rule and discussed in paragraph 1 herein to potentially suspend certain of those rules during an emergency, and allow loosened supervision requirements, or potentially create clear alternative supervision requirements for areas and during times declared to be disaster areas by the Governor.

III. Career Paths Initiative

Goals:

- ❖ Establish clear and varying career paths to funnel more individuals into the trade, and with clear, incremental paths of promotion within the trade and propagate new plumbers
- ❖ Further incentivize comprehensive training and education through a formal apprenticeship program or classroom degree by offering quicker promotion within the trade
- ❖ Eliminate high school diploma or high school equivalency examination requirements for purposes of obtaining the Journeyman Plumber or Master Plumber License

1. Board recommendation for promotion and Board approval of Associate of Applied Science Degrees. At its Board meeting on November 14, 2018, the Board formally approved its first Associate of Applied Science Degree program in plumbing. The Board would continue to implement and promote the Associate of Applied Science Degree as a fully-realized career path towards licensure as a Master Plumber. Presently, statute allows the Board to award a certain number of hours for holding an associate of applied science degree in plumbing, for purposes of accumulating the number of work hours necessary to take an examination for licensure. The Board is currently considering rule changes to award 4,000 work hours to the holder of an Associate of Applied Science Degree, allowing the degree holder the ability to immediately take the Tradesman Plumber examination.

2. Board staff recommendation to reduce the waiting period to take the Master Plumber

examination for the holder of Associate of Applied Science Degree. Under existing law, a person who successfully completes a Department of Labor approved apprenticeship program may take the Master Plumber examination after only holding their Journeyman Plumber License for a period of one year, as opposed to the normal four-year waiting period. Board staff recommends instituting a similar scheme for the Associate of Applied Science Degree. Board staff specifically recommends a waiting period of two years for the holder of an Associate of Applied Science Degree to take the Master Plumber examination. This will incentivize the new Associate of Applied Science Degree career path.

3. Board staff recommendation to eliminate high school diploma or high school equivalency examination requirements for Journeyman Plumber and Master Plumber. While simultaneously promoting formal training and apprenticeships in the industry with incentives for career promotion, the Board is in the process of amending its rules to eliminate high school diploma educational requirements for Journeyman Plumbers and Master Plumbers.

The requirement of a high school diploma or equivalent is not imposed by statute, but instead has been imposed by Board rule continuously since 1984. Said requirements were meant to ensure a baseline level of education of its licensees. While Board staff believes a high school education is important, after conducting a comprehensive review of its rules in connection with the career paths initiative, the Board concluded that the requirement constitutes an artificial barrier to licensure, and may be preventing many more individuals from becoming licensed plumbers, without a commensurate benefit to the public. As a result, at its Board meeting on November 14, 2018, the Board voted to proceed with the preparation of draft rules eliminating the requirement, for further review and consideration in order to formally propose and publish said rule changes in the *Texas Register*.

The examination tests the basic reading, writing and math concepts necessary for the trade. Truly incompetent individuals will fail the examination, and will not be issued a license, thus ensuring the public's safety. With a robust examination, including retention of the practical examination, unqualified individuals will be denied a license. Therefore, the requirement of a high school education arguably does nothing to protect the public, and may be preventing valuable plumbers from obtaining a license and propagating new plumbers.

The high school diploma requirement arguably imposes more of a burden on the economically disadvantaged, who are more likely to drop out of formal education, and less likely to have the resources to take prep classes and to study and pass a high school equivalency exam.

Even for persons who may meet the requirement, the requirement still imposes unnecessary delays and burdens in licensure. An application for a license other than the Tradesman License requires the applicant to send in documentary evidence of their high school qualifications.

Many applicants do not have records on hand from schooling they may have completed many years and sometimes decades ago. Many schools have closed and records are not available. With the rise of charter schools and voucher programs, many more schools start and fail, and are increasingly difficult research and verify. Other complications can occur when

someone has nontraditional schooling such as homeschooling, where there are scant requirements or processes for documenting their completed schooling and diploma. Many parents rely on documents generated by third party partnerships that the parent utilized to obtain the educational curriculum where, technically, the parent is the administrator of the school and arguably should be issuing such documents.

For individuals that do not meet the requirement, it spurs an individual to obtain the qualification. Many such persons in search of an easy solution fall victim to illegitimate “diploma mills”, costing them valuable time without a license, delaying their career, and costing them several hundreds of dollars. Individuals who apply and learn they have fallen victim to such a sham are dismayed, discouraged, and some abandon their prospects of advancing in the trade.

There is likely an entire class of individuals for whom the prospect of acquiring the qualifications to meet the requirement is “a bridge too far” and, rather than seeking licensure in an industry and state starving for more licensed plumbers, the individual toils away as an apprentice or Tradesman Plumber, limiting industry staffing. Others avoid or leave the trade entirely, unwilling to take action to meet the requirement.

The high school requirement also imposes an unnecessary burden on agency resources. The Board typically reviews 10-15 applications for licensure each week requiring a high school education. Board staff must review documentary evidence and determine whether it meets the requirements. A handful of those applications do not immediately reflect whether it meets the requirement. Applicants are often asked to transmit transcripts or other additional documentation, requiring several communications and much “back and forth” with the applicant.

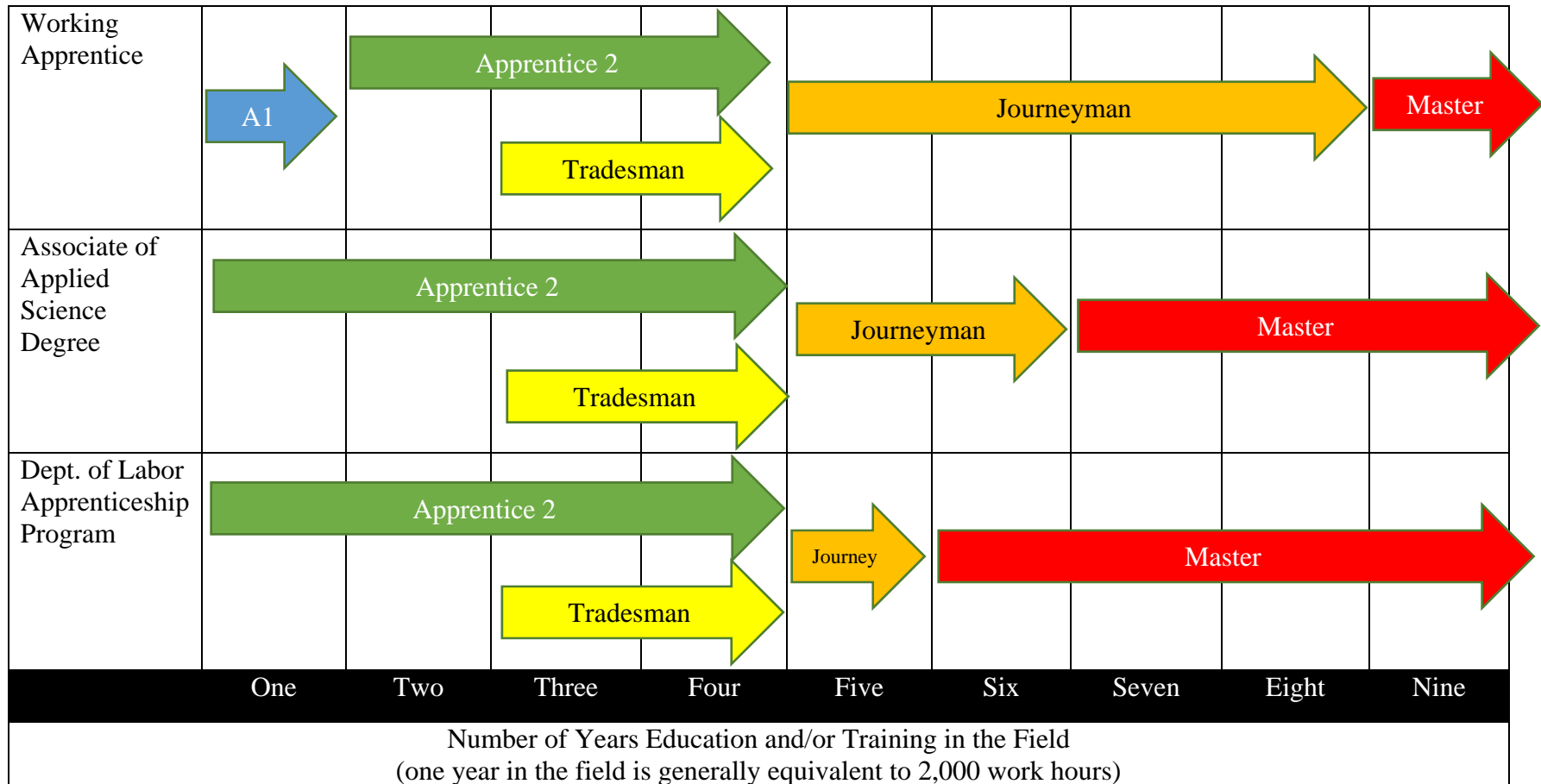
In recent years, many more individuals are coming from out-of-state, including many from foreign countries with educational systems and languages different from our own. This sometimes requires significant effort to analyze the documents, including whether the schooling is equivalent, and, sometimes, translation of the documents into English.

With efficiencies gained from not performing these reviews, the agency’s Licensing Department could reallocate these resources towards review of the applicant’s criminal background, a task considerably more relevant to protecting the public.

Moreover, reviews of applications that are a “close call” are forwarded to the Board’s staff attorneys for review. These reviews further add to the workload in the Board’s Legal Department, and detract from their normal enforcement duties, which arguably are more directly related to protecting the health and safety of the public.

Regardless, Board staff takes the position that a fundamental requirement such as requiring a high school diploma and which operate as a barrier to licensure should be implemented by statute, and not by an administrative rule of the Board. As a result, to the extent the Commission or Legislature determines that the requirement is important and should be maintained, the Sunset Commission should consider adopting the measure.

Career Paths Initiative, Illustrated



IV. Enforcement Initiatives

Goals:

- ❖ Increase public awareness of enforcement actions and disciplinary history of licensees and registrants
- ❖ Fully staff the Board's enforcement staff to scale with the increased population and continued growth of the state
- ❖ Implement statutory changes eliminating the Enforcement Committee
- ❖ Implement formal written process for prioritizing complaints
- ❖ Implement formal written process for Informal Settlement Conferences
- ❖ Implement adoption of revised penalty matrix
- ❖ Implement the following Sunset recommendations:
 - 3.2
 - 3.4
 - 3.5
 - 3.6

1. Increased public disclosure of enforcement actions. Currently the Board posts on its website summaries of the final disciplinary actions it imposes by formal order arising from each board meeting. The Board's website currently lacks the ability to search for a licensee and review their disciplinary history, and retrieve the underlying documents associated with the action. The Board does have a public-facing portal to its licensing system, however the system is limited in terms of what it can display. The Board though is in the process of implementing increased public disclosure of a licensee's disciplinary history through the public facing portal. Discussions with Health Professionals Council (HPC), who administers the licensing database shared amongst various health related agencies, indicates that the feature should be "live" in a matter of weeks, and hopefully before the public Sunset hearing in December.

While not a complete picture of the circumstances giving rise to the action, it represents an interim change that could be orchestrated within the pre-existing license database system, without substantial cost to the agency. Specifically, the portal will show the licensee's name, a generic description of the penalty, and the date of final disposition. It will not offer any background concerning the circumstances of the violation, or the identity of the complainant or any third parties involved. It also will not offer a direct link to any of the underlying documents associated with the dispute.

A motivated individual could work backwards from that information and track down documents memorializing the violation and arising from the Board meeting. The more likely result however is that the incomplete information offered through the public-facing portal will cause many individuals to file an open records request with the Board for additional information. Providing a complete and useful picture of each violation and the corresponding documents would require additional customization of the Board's licensing database system.

Given recent other discussions with HPC regarding estimated costs of \$10,000+ for implementation of the recommended biennial renewal of licenses, it is reasonable to conclude that customization of the database system to enable a comprehensive search of information would cost significantly more than that figure. Given the uncertainties of the Board's future, and the uncertainties related to TDLR's own push for a new consolidated licensing system that may be very different from the Board's Versa system, the Board believes any further actions should be tabled in the near term while these uncertainties resolve themselves.

2. Fully staff and restore Board's enforcement staff. As indicated by the graph at the beginning of this response, the Board has, for the better part of a decade and due to rapid population increases and a vibrant and growing economy, experienced steady growth in its responsibilities. Staffing levels have not kept pace with this growth, resulting the enforcement deficiencies identified by Sunset during this review. With appropriations scaled to the workload of the agency, complaint resolution times will be brought down.

3. Implement elimination of the Enforcement Committee. Board staff is fully supportive of this statutory change, and believes it will greatly improve resolution of disciplinary matters, and improve complaint resolution times, given the participation of the Board's Field Investigators will no longer be required. Board staff envisions the Director of Enforcement and one or more staff attorneys reviewing complaints and completed investigation reports to determine whether a violation has occurred, and to determine the penalty sought, in consultation with a revised penalty matrix, as recommended by Sunset staff. The statute current provides for the Enforcement Committee to issue notices concerning alleged violations, including the recommended penalty. Board staff recommends this authority be conferred jointly to the Executive Director and Director of Enforcement, and each with the ability to act independently.

4. Implement formal policy for Informal Settlement Conferences. Board staff presently engages in informal discussions towards settlement with many alleged violators, which it regards as informal settlement conferences for purposes of Section 1301.5071 of the Plumbing License Law. However, realizing settlement from these discussions typically requires referral of the matter back to the Enforcement Committee for additional consideration, or a formal agreed order adopted at a Board Meeting. Board staff believes a more robust rule concerning Informal Settlement Conferences will add some needed formality to this informal process, and increase its usefulness. It will also play an important role is replacing the proposed elimination of the Enforcement Committee as a part of the settlement process.

At its most recent Board meeting on November 14, 2018, the Board discussed rule amendments to implement the change, and instructed Board staff to proceed with the preparation of draft rule amendments, for further review and consideration in order to formally propose and publish said rule changes in the *Texas Register*. The current concept of the rule amendments entail allowing the Director of Enforcement to refer contested matters to an Informal Settlement Conference, and would require the Director of Enforcement to consider same when the case involves factual matters in dispute, when the alleged violator requests a hearing at the State Office of Administration Hearings, or when the case appears to demonstrate economic harm to the complainant or a third party, which may be ripe for restitution.

The Informal Settlement Conference would be set on a date and at a time certain, with notice to the alleged violator. In advance of the Informal Settlement Conference, on a date certain, the alleged violator would be required to provide any written statements or other documents to be considered at the Informal Settlement Conference. Board staff believes the Informal Settlement Conference should have some ability to actually resolve the matter, rather than merely engage in additional fact finding. Board staff would recommend that settlement authority and the ability to bind the Board to a settlement be conferred on certain staff members as a part of the Informal Settlement Conference, to promote the efficient resolution of disputes by agreement, and replace the current role of the Enforcement Committee in that regard.

5. Implement adoption of new penalty matrix. Board staff supports adoption of a revised penalty matrix as recommended by Sunset staff. The current concept of the new matrix envisions imposing ranges of penalties for discreet categories of penalties, with mitigating and aggravating factorial analysis including previous history of violations, whether the violation was knowing and intentional, and whether the violation resulted in actual harm. Board staff will conduct a survey of other agencies with similar enforcement duties who have recently revised their penalty matrix and include any elements that are conducive to the Board's purposes.

6. Implement formal complaint prioritization policy. As related above, Board staff asserts the Board is already prioritizing complaints, but agrees that a formal policy with clear standards and universally applied will improve tracking and ensure accountability of such prioritization. At its most recent Board meeting on November 14, 2018, the Board discussed rule amendments to implement the change, and instructed Board staff to proceed with the preparation of draft rule amendments, for further review and consideration in order to formally propose and publish said rule changes in the *Texas Register*. The current concept of the rule amendments entails assigning each complaint that is within the jurisdiction of the Board a priority number between 1-3.

Priority 1 cases would be of the highest priority and processed before any other classification of complaint. Priority 2 cases would be worked in the order of receipt, but could be escalated either by the Director of Enforcement or the Field Investigator reviewing the complaint, if the investigator determines that a higher priority should be assigned. Priority 3 cases would only be worked if and when there are no Priority 1 or 2 cases pending. Priority 1 cases are those matters alleging or implicating actual harm or substantial threat of harm to the public. Any complaint not alleging actual harm or substantial threat of harm, but still alleging economic harm, or wrongdoing by a plumber and involving a third party will be treated as a Priority 2 complaint. Any complaint not classified as a Priority 1 or 2 would be classified as Priority 3. More specifically, the Priority ratings are described as follows:

- i. Priority 1 –
 - a. Combustible gases. Complaints alleging or involving combustible fuel gases, such as improperly installed fuel-gas fired appliances, gas leaks, or explosions, or unlicensed plumbing involving fuel gas work.
 - b. Medical gas. Complaints alleging or involving improperly installed medical gas, or unlicensed or un-credentialed individuals installing medical gas.

- c. Contamination of potable water. Complaints alleging or involving “cross connections” or incursions of sewage or contaminated water into drinking water. Complaints alleging or involving illness or disease suspected to be transmitted as a result of improper plumbing.
 - d. Uninhabitable primary residence or business. Complaints alleging or describing substantial impairment of enjoyable use of a building used as a primary residence or facility of a business due to the plumbing system. Examples might include non-functioning sewer, noxious fumes, black mold etc.
 - e. Major environmental spills. Complaints alleging substantial release of effluent from a plumbing system and contamination or threatened contamination of fresh water.
 - f. Requests of local authorities or interagency assistance. Complaints made by or involving a request for assistance from a local authority such as a Plumbing Inspector or building official on behalf of a municipality, a Fire Marshall, or from another agency.
 - g. Criminal activity. Complaints made, or official alerts received by law enforcement concerning a felony conviction by a licensee or registrant.
 - h. Habitual offender. Complaints alleging potential violation of a person known to have a recent history of past violations and for whom expedient injunctive relief may be required to obtain compliance.
- ii. Priority 2 –
- a. Customer complaints alleging potential economic harm, but not alleging danger to health and safety. Examples might include improper installations already resolved by the offending plumber or a subsequent plumber, evading responsibility to a client, general dissatisfaction of work, misrepresentation of services provided, or improper retention of money or materials.
- iii. Priority 3 –
- a. Complaints not categorized as a Priority 1 or 2.
 - b. Class B violations. Most violations concerning a minor violation currently classified as a Class B violation and not demonstrating actual harm, such as violations for improper marking of services vehicles, failure to include information concerning the Board’s regulatory oversight on an invoice, and failure to state the license number in an advertisement.
 - c. No proof of violation. Complaints that fall within the jurisdiction of the agency but that fail to allege a good faith basis for the violation or otherwise indicate an inability to obtain evidence to support the alleged violation.
 - d. Jobsite compliance checks, other than those conducted ancillary to a complaint investigation, or otherwise conducted en route, while travelling to investigate a complaint.

V. Continuing Education Initiatives

Goals:

- ❖ Implement Board-recommended statutory changes to establish for Continuing Education (CE) hours requirements by rule
- ❖ Increase competition of Continuing Education classes by eliminating existing requirement that course providers utilize only the materials of a course book from a board-approved publisher
- ❖ Increase competition and availability of Continuing Education classes by allowing for online Continuing Education classes
- ❖ Implement the following Sunset recommendations:
 - 2.5
 - 2.11

1. General de-regulation of Continuing Education. Board staff agrees that, despite well-meaning intentions in building the Continuing Education (CE) program over the years, its particular requirements are outmoded in an era where course materials may be digital instead of paper, and where a physical classroom is superfluous. The program harkens back to a time (1992) when continuing education programs were not commonplace amongst the professions and trades, requiring the Board had to grow and foster the Continuing Education program, and ensure quality. In the past two decades, private companies have entered the marketplace for continuing education of all trades and professions, bringing robust competition and creative approaches to the market space. Board staff believes the time is ripe to remove once-needed quality control restrictions, and allow the CE program to prosper in the modern digital age. Specifically, the Board has identified the following changes:

- i. Online coursework. On November 14, 2018, the Board adopted measures to proceed with rule amendments to allow for Continuing Education courses to be taken online rather than in a physical classroom. However, a cap may placed on the number of CE hours which may be accumulated through online course work.
- ii. CE compliance tied to license renewal term. The rigid CE course year would be eliminated. Board staff recommends statutory changes allowing for CE hours requirements to be determined by rule, or otherwise expressed in language other an annual basis, to allow for the compliance year to be directly tied to the license renewal term, which Sunset staff recommends be longer than a year.
- iii. Approval of CE providers and courses. Board staff recommends approving course CE course providers on an ongoing basis and expiring approval after one year. Approval of courses would either be contemporaneous to the provider application, or for additional courses, by

separate application. The course approval process will include all materials and instructors of the course. The practice of approving instructors, separate and apart from the approval of the CE course, would be eliminated. Instructors would need to display the experience and background through education and experience to instruct the course, and need not take formal training. The practice of requiring use of materials from a board-approved publisher would be eliminated.

- iv. CE increment hours and approval of providers and courses. Rules regarding rigid incremental structure of CE hours would be eliminated, to allow for additional CE formats and course lengths. The Board may institute required hours in certain discreet topics, but the CE provider would be free to curate a “customized” course covering any number of those required topics. Upon approval, the CE course will be approved for a certain number of hours, including approval of any required topics. Approval of courses would incur a per-credit-hour-offered fee.
- v. Approval of non-provider courses. Board staff recommends that the Board consider allowing CE courses from someone other than an approved-provider on a course-by-course basis. This would allow an organization or a manufacturer to provide a “one-off” course where they may not want to become a full-time provider. A cap would be placed on the number of hours one may take from a non-provider, for purposes of determining CE compliance.
- vi. Distribution of materials. A copy of any course materials, including handouts, or slideshow or Powerpoint slides utilized in the presentation should be given to the attendee, but may be provided in a digital format. Any other requirements governing distribution of course materials would be eliminated.
- vii. Classroom experience. Rules placing hard caps on CE attendance rosters would be eliminated and replaced with rules requiring sufficient audio/video capabilities to ensure participation. Rules disallowing the presence of third parties such as manufacturers or banning the provision of gifts, or placing limits on food and drink would be largely rolled back or eliminated. The plumbing trade advances with the advent of new materials, technology, and techniques. While the Board should be careful to not “put its thumb on the scale” to prefer one manufacturer or another, or a particular new material over another, Board staff believes the current rules go too far, and hinder symbiotic and synergistic relationships with industry, preventing the licensee from receiving beneficial information concerning new tools or materials that may benefit them in their field. Improving the classroom experience to make it more valuable and enjoyable is particularly important at a time when the Board plans to

implement online CE courses. While online CE is a valuable part of ensuring the widespread and convenient availability of CE courses, the Board still places some intrinsic value on the classroom experience, which fosters more dialogue and conversation while also better ensuring the accountability and attentiveness of the attendee.

VI. Consumer Education and Public Awareness Initiatives

Goals:

- ❖ Educate the public about the agency's role in regulating plumbing, and ensure they demand the services of a licensed plumber when they require plumbing services, and interrupting the provision of illegal plumbing through public awareness campaigns and at community events throughout the state
- ❖ Promote industry recruitment at middle schools, high schools, technical schools, and other vocational recruitment opportunities and community events by educating prospective workers about opportunities in the plumbing trade, and specifically the various career paths available in connection with the Board's proposed Career Paths Initiative

1. Dedicated and coordinated community outreach and public awareness efforts. Board staff believes community outreach and public awareness and education efforts are an important part of its strategic plan. Board staff believes that an informed public will demand the reliability, accountability and sound judgment of a licensed plumbing professional, and not turn to unqualified and unscrupulous individuals who might detract from the Board's mission. Community outreach and public awareness education also serves the dual purpose of promoting the plumbing profession as a rewarding career option.

Unfortunately, the Board has been required to sacrifice and pull back from this community outreach role, given its continuously-growing responsibilities over the past decade, and amid staffing levels that did not keep pace. The provision of illegal plumbing and the strong need for additional licensed plumbers in a state with a rapidly growing economy and sharp population growth are complicated issues that do not lend themselves to one tidy solution. Dedicated and coordinated efforts at community outreach and public awareness can have beneficial and synergistic effects with the Board's other efforts to blunt and disrupt the provision of illegal plumbing through proactive enforcement, and to encourage industry recruitment and career advancement through its licensing activities and the proposed Career Paths Initiative.

Board staff believes a dedicated effort at community outreach and public awareness will make great inroads and further both enforcement and recruitment goals. A dedicated effort will enable the Board to develop program materials and deliver coordinated public awareness campaigns. Regular appearances at community events, and career development events in schools and industry recruitment events will establish and solidify relationships with schools and

community organizers of the sort that develop into new partnerships and opportunities to funnel more promising young minds into the trade; and in particular to secure partnerships with community and technical schools who might implement an Associate of Applied Science Degree program, and/or serve as a testing location for the examination.